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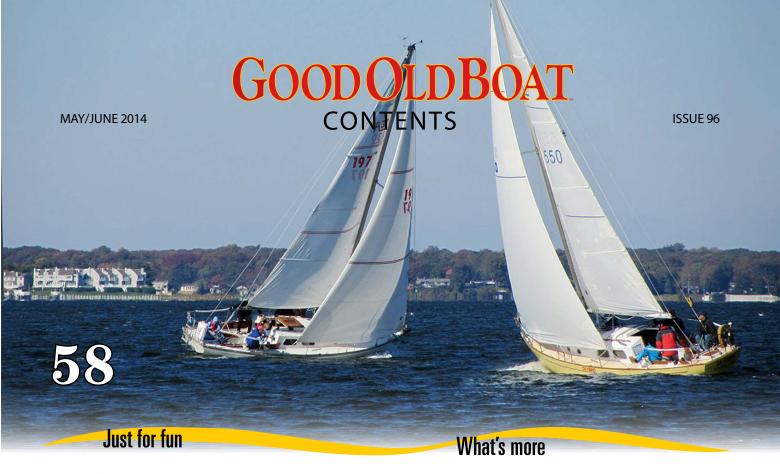
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Sailing photographer Billy Black caught Mirari, Dan Stadtlander's restored 1969 Bristol 39,



close-hauled at the start of the 2013 Bermuda 1-2 Singlehanded Race near Newport's Castle Hill Light. According to Dan, Mirari races in "What I call affectionately the dinosaur class (mostly oldies)."

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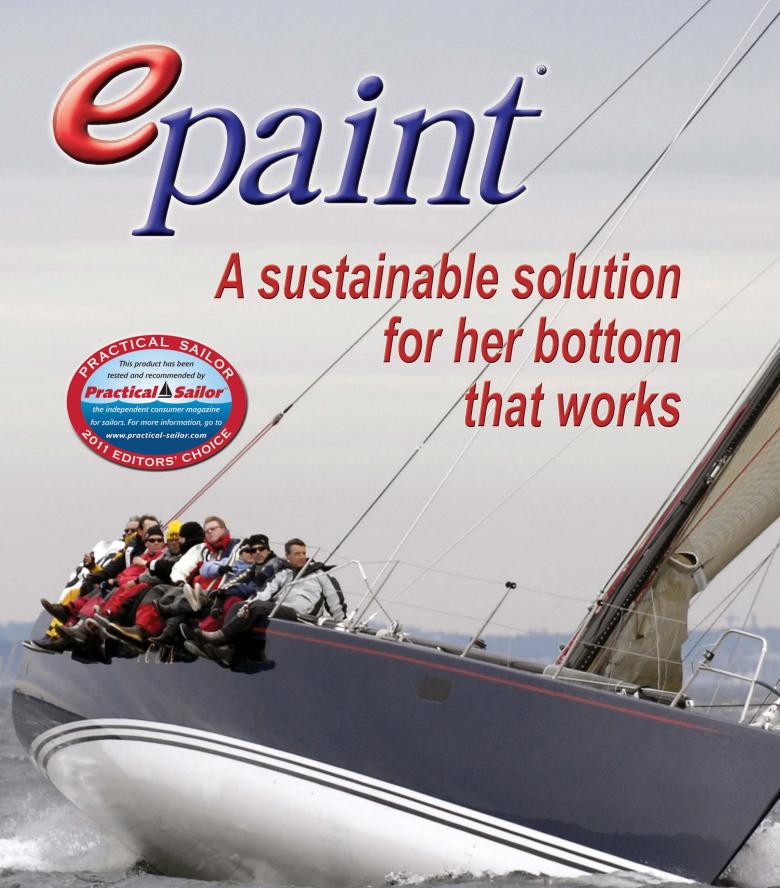
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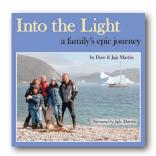
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leven years is a long time to dedicate to a two-year refit. But there it is. This summer we will launch our project boat, purchased in February 2003. We are so excited we'll be holding an open house for our subscribers in Superior, Wisconsin, June 29. If you're close enough to make it, please join us. (More on that will be announced on our website in June.) It is really going to happen this time. Really and truly.

What began as a gleam in Jerry's eyes in 1977, when C&C introduced the Mega 30, culminated in our purchase of a good old used Mega in 2003. Thrilled at the prospect of new cruising grounds, we started discussing possible destinations for our trailerable boat in the belief that we'd be traveling the country and sailing in new lakes and coastal areas in another year or so. I immediately rebuilt and re-covered the disintegrating seat cushions and added many other touches to the interior. They've been ready for nearly a decade. Just as quickly, Jerry bought anchors and electronic gear and tore into the project with a will. The anchors have not been wet yet. Some of that electronic gear is now outdated (but will go into service).

We knew the core on the foredeck was delaminated. We knew we'd be making a few cruising modifications to make our no-nonsense one-design racer more comfortable. We realized there was a lot of work to be done. We got that. But somehow — when it's your project — you never really "get it." Not entirely. Not when it comes to the investment in dollars that will be spent or the number of hours that will be required. Looking back at it from this perspective, it's very clear that we didn't get it. Not at all.

Over the years, Jerry emptied the hull of all furniture and rebuilt or re-designed and changed it completely. He dealt with the rotten core and had the deck repainted to cover the repair. He basically changed everything inside and out. During the deconstruction period he noted with disgust that he could have built a hull more easily, or perhaps started with an empty fiberglass shell and been farther along.

Throughout that time, we commiserated with our readers who get into boat refit projects that are bigger

than they anticipate. We figured it was fitting and proper that Jerry should encounter a boat more demanding than *Mystic* (our C&C 30/Lake Superior boat) had been. When we got her, *Mystic* was ready to go. She made no demands. Jerry nevertheless made many modifications to her, but he did so at his own rate and as a result of sailing her and discovering changes that would improve our time aboard.

But he'd had it too easy. As a founder of *Good Old Boat*, he should feel our readers' pain more compassionately, or so the theory goes. So the boat we would eventually name *Sunflower* came to teach us both a little about humility.

We have learned two very large lessons. Cruisers who set out to circumnavigate are forewarned not to say they are planning a circumnavigation, so that if they later scale the plan back to a smaller one, they won't be thought of as having "failed." In the same way, we should never have mentioned our high hopes of completing a refit and being out there on the highway within a couple of years. Jerry was soon dodging the inevitable questions about how much *longer* this project was going to take. The first lesson is not to predict when a big project will be done.

Second, Jerry's advice to fellow sailors from the day we started the magazine was to sail your boat as you gradually modify it. Never should you tear it apart or put it out of commission for long. That's very good advice, particularly if that is your only boat. You have to keep sailing in order to stay inspired. With *Mystic*, we did have another boat.

But the fact remains that Jerry has massively modified *Sunflower* without really knowing this boat. As I write this in the winter-of-2014-that-refuses-to-melt-into-spring, we have not yet sailed our Mega 30. We brought her home in a snowstorm in February 2003 and tore her apart completely.

This summer we will sail, test, tweak, and modify. We have waited 11 years to take our own advice. The second lesson is to do as we say, not as we do. We are so very ready to sail that boat and appreciate all the things Jerry has built over the years.

We would love to show you the results of our 11-year refit. Perhaps we'll see you on the water where you sail. That has been our goal all along.  $\triangle$ 

## Hands-off sailing, comfy bubble,



#### Look, Ma, no hands!

In December, I sailed my Gladiator 24 while towing my dink. The drag from the dinghy helps keep my boat tracking straight and true. While under way, I pulled the dinghy up to the stern and climbed in. My sweet boat sailed herself back from a favorite anchorage in Lake Tahoe's Emerald Bay while I watched from the dinghy. She did not round up. She did not hunt. She did not go into irons. She sailed beautifully all the way back.

What I did not plan on was how difficult it would be to get back into the boat from the dinghy! There was a whole lot of drag with my weight in that dink. Carefully, slowly, hand over hand, I pulled myself back up that dinghy painter. Closer and closer with pinpoint concentration, I moved forward, eventually getting within inches of the mother ship in a position from which I could read the very small numbers stamped there by the factory. What? It read 1961, while the registration papers I have read 1963. This caused a moment of stunned confusion!

There is a warning here: do not do likewise unless you have a better plan than I did for getting back aboard the mother ship, such as leaving a strong friend on board to luff her up and haul you back.

Fortunately, my story ends well. "To the stern!" I cried, and leapt like a frog after a fly.

-Steve Madsen, Lake Tahoe, Calif.

#### **Cutting precise holes**

Thanks for the article on replacing the engine instrument panel (January 2014,

"Engine Instrument Update"). This was a long overdue project on my Atkin schooner and I just finished cutting the holes.

I suggest using a wheel and circle cutter to cut holes with precision. Practice cutting circular holes with the tool on



scrap acrylic, which you can get from a picture-framing store. The break has to occur in the center of the material, so when drilling or cutting you need to cut to the center of the acrylic. Do this by cutting from one side, then turn the sheet over and cut from the other side.

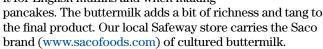
When drilling, drill slowly and use several bits to get the desired outside diameter (OD). I increased the drill bit OD in increments of only  $\frac{1}{8}$  to  $\frac{1}{4}$  inch.

Interstate Plastics (www.interstateplastics.com) has ¼-inch black acrylic sheets.

-Jim de Reynier, Middletown, Conn.

#### **Powdered buttermilk**

I was delighted to learn that *Good Old Boat* reader Will Sugg had
tried our stovetop English muffin
recipe ("Stovetop English Muffins,"
March 2014) with good results. This
inspired me to share a suggestion
that might further enhance the
taste. We carry a can of powdered
buttermilk when out cruising and use
it for English muffins and when making



-MJ Richards, Sequim, Wash.



My boat, *Windy*, a 33-foot 1972 Jouette Fandango, is moored in Ashkelon, Israel. I installed Unimer Smart Snubbers on both of my stern lines a few

months ago. My docklines are
16mm (%-inch)
polyester. When
I came back to
check on the boat
after a stormy
week, I found to
my horror that one
of the lines had
chafed through
and the second
one was badly

chafed. I replaced both lines and stopped using the Smart Snubber immediately.



-Guy Rom, Ashkelon, Israel

#### Correction

We erred in the caption describing the photo of *Badger* on page 39 of the March 2014 issue ("Building a Junk Rig" by Annie Hill). The junk-rigged boat in the photo is indeed *Badger*, but Annie's sailing partner aboard was Pete Hill, not Trevor Robertson.

-Editors

## and the dismal science



#### **Comfortable bubbles**

I thought I'd comment on Ed Zacko's excellent article, "Entr'acte's Bubble of Comfort" (March 2014). Just last summer, we created our very own bubble of comfort for our boat. It is nearly identical to theirs and it's amazing how much warmer and drier it is on the inside. I know from firsthand experience.

Last summer, we sailed from Bayfield, Wisconsin, to Isle Royale, Michigan, on Lake Superior. The overnight passage was cold and uneventful, but I stayed warm and dry under the bubble. Once the sun made its appearance the next morning, the weather took a turn and we were hit with 30-knot and higher winds and 5- to 6-foot waves that blasted me with spray while I took care of things at the helm.

Kari and the boys were not too happy about the motion of the boat, but although it was difficult to be down below, they were warm and dry inside the bubble. I was secretly having the time of my life while being completely miserable at the same time, and I fought off the penetrating glares from my family every time a big wave slapped us around. Landfall is always especially rewarding after enduring conditions like that and I can't say that they've forgotten how miserable it was. I can say, though, that it was much less miserable with the bubble of comfort in place.

-Danny Saathoff, Robbinsdale, Minn.

#### The dismal science and a sailor's psyche

Carl Hunt's application of the dismal science ("Fix it or Nix it?" March 2014) to our happy pastime is a useful insight. I've often wondered how many owners of motorhomes, if they figured the actual days on the road and the per-night cost of their investment, would opt for a five-star hotel instead. Carl did the calculations on adding an aft

With a wink, Patrick Shinners says, "If my son Collin is not sure he wants to race, I drop him off on this can in Marquette's lower harbor so he can think about it." Michigan racers are pretty hard core. Be careful whom you race with! Send karen@goodoldboat.com a high-res photo of your favorite aid to navigation. If we publish it, we'll send you a Good Old Boat cap or T-shirt. In this case, Collin's parents went racing and all he got was a lousy T-shirt, or so the expression goes.

cabin and chose the alternative. Of course he does acknowledge that undefinable pleasure in ownership that goes beyond the utilitarian (as exemplified by a collector's Bugatti or Stradivarius).

All this brings to mind a psychologist friend who rarely recommended a course of action. Rather he would advise, "It's OK to do what you're doing, as long as you know what you're doing when you're doing it."

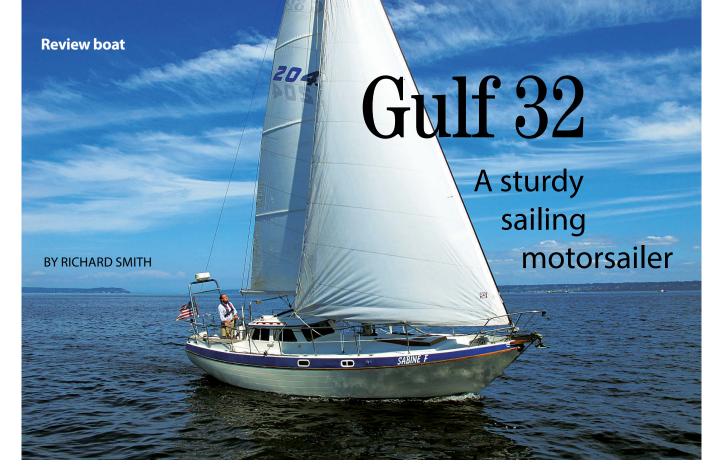
On that note, it's striking that the editor of a well-coifed yachting magazine would display herself (March 2014, "Helmophobia"), fleece over life jacket, in the sartorial equivalent of the Michelin Man on a bad hair day (if he had any hair). So it's not surprising she then has the courage to admit, regarding that coveted throne, "I don't dig the helm and that's that."

Now let's run the figures. Consider the hundreds of hours and thousands of dollars that, say, Woody Allen has spent in analysis to perhaps achieve similar self-honesty and candor. In comparison, a sailboat, good old or shiny new, looks like quite the bargain. Perhaps that's the point and the final financial analysis.

-Richard Brownley, Chico, Calif.

continued on page 68





apital Yachts, the builder of the Gulf 32, was formed in 1971 by Jon Williams and Bill Smith when they bought the tooling for the Newport line of boats from Elgin National Industries in New York. They set up a plant in Harbor City, California, and engaged Gary Mull and Cuthbertson & Cassian to help them update and expand the line. In the early 1980s, Capital Yachts diversified from its staple racer-cruisers into the Gulf line of motorsailers. As with so many yacht manufacturing companies, the history of Capital Yachts is brief. The company went out of business in 1996.

While the literature of Capital yachts does not identify the designer of the Gulf 32, the boat is, without a doubt, the 32-foot design created by William (Bill) Garden in 1964 for Gulf Products. The Gulf 32 is featured in Bill Garden's book *Yacht Designs*, which contains copies of his original drawings that are works of art. They reveal an extraordinary personal involvement with the work from design concept to the smallest detail. How Capital Yachts acquired the design or the tooling for the boat is unclear.

Bill Garden had spent much of his career designing and building workboats that had to keep the sea night and day, in fair weather and foul — tugs, trawlers, gillnetters, sardine boats, and even a pile driver or two. Those workboats, which had a beauty of their own, often served as inspiration for many of Bill's pleasure boats. Examples are his famous canoe yawl design, the slippery Eel, and the powerful world-cruising 160-ton, 85-foot *Nereus*.

Bill called the Gulf 32, of which about 400 were built, a "sailing motor-sailer." It has a full keel and attached rudder but is best recognized by its pilothouse. Anyone interested in the type should compare this boat with the Rawson Pilothouse 30, another Bill Garden design (reviewed in the





Jack and Barbara Bryce sail their Gulf 32, Sabine F, at top, in the Pacific Northwest. With its low-profile pilothouse and flush deck, the boat looks surprisingly sleek for a motorsailer. The deck forward of the pilothouse is clean and workmanlike, at left, and the wide sidedecks provide a safe walkway between the liferails (yes, rails!) and house. The comfortable T-shaped cockpit, at right, has lots of lockers for storing boat gear.

An extension under the galley counter makes the port settee in the saloon a full-length berth, top right. The backrest folds up to make a child's berth above the settee. The galley is in the pilothouse, center right, and although compact, has everything a sea cook needs. The view from the pilothouse, bottom right, reveals the molded seat in the forward stateroom.

January 2011 issue), and seagoing relatives such as the Vancouver 32, Endurance 35, several designs by Ted Brewer, and similar pilothouse boats. Two more articles of interest are Rob Mazza's "Defining a Pilothouse," in the September 2013 issue, and "Pilothouses and Performance," in November 2013.

#### Design

Approached from dockside, Sabine F, the 1986 Gulf 32 owned by Jack and Barbara Bryce, is remarkable for her imposing freeboard. A 2-inch oval teak rubrail runs the length of the hull a few inches below deck level, establishing a secondary sheerline with a sweep of its own. The hull above the rubrail is a contrasting color and the eye is also drawn to it by a line of portlights. The effect is to lend a little more spring to the sheer as it diminishes the apparent height of the freeboard and general bulk of the boat. This effect is enhanced by molded-in strakes that follow the curve of the rubrail. In addition to offering some protection to the hull, the rubrail covers the hull-to-deck joint.

The pilothouse is well integrated into the overall design and doesn't obstruct crew movement fore and aft along the sidedecks. The roof overhangs the front and sides of the pilothouse. The large windows can cause problems. In addition to the issue of vulnerability in a seaway, acrylic or polycarbonate pilothouse windows become crazed with age. The visibility problems this creates are of more significance than with smaller portlights used mainly for admitting light. Some owners have replaced the plastic windows with %- or ½-inch tempered glass.

Consistent with the motorsailer type, the Gulf 32 has a heavy displacement; its displacement/length ratio is 563. This means it has a lot of volume below the waterline that provides ample space for tanks and stowage. Since it also has a small rig, the boat is not a sprightly performer under sail.

#### On deck

Sheeting hardware for the mainsail is located on top of the pilothouse where it's out of the way. Molded-in toerails outboard of the wide sidedecks are an important safety feature, as are the stainless-steel railings used in place of wire upper lifelines. Bulwarks almost a foot high surround a large recessed foredeck area, that Bill Garden called the "well deck," where much of the work of anchoring and sail changing takes place.

The cockpit is surprisingly large for a 32-footer with such a commodious interior. A molded-in hump in the helmsman's seat improves the view over and to either side of the pilothouse and the crew seats, which are separated from the helmsman's position, are deep and comfortable. The very wide (up to 14 inches) teak-covered coaming top provides additional seating with the liferails as backrests.

Engine controls are located in the pilothouse, but a throttle, gear lever, and the engine stop cable are also mounted on the steering pedestal in the cockpit. When one of the steering stations is engaged, a station exchanger disengages the other. An emergency tiller can be connected to the rudder head abaft the steering pedestal.

Good stowage is located under cockpit seat hatches and the wide teak coamings contain open compartments for winch handles. On *Sabine F*, a 5-gallon compressed natural gas (CNG) bottle (which was not standard equipment) is stowed under the hatch to port of the helmsman's perch. The opposite hatch to starboard is







used for general stowage. Because of its ample displacement and freeboard, the Gulf 32 lends itself to carrying a dinghy on davits. This is a welcome convenience to the cruising sailor and many Gulf 32s are so equipped.

#### The rig

The standard Gulf 32 was rigged as a masthead sloop, and it could be given a double-headsail rig with the addition of an optional club-footed staysail. The deck-stepped mast is supported from beneath by a 2½- x 13-inch wooden compression post that abuts the main structural bulkhead.







The wide companionway, at left, is closed by two doors and is protected by a sill and a hinged flap that closes it up to cockpit-seat level. The boat's interior is well lit by the pilothouse windows and entrance, center. Access to the engine below the pilothouse sole is very good, at right.

The basic rigging is a standard arrangement of forestay, split backstays, single spreaders, a single upper shroud, and double lowers. The lowers on *Sabine F* attach to internal stainless-steel chainplates.

Line handling is simplicity itself. Two-speed Lewmar 30 jibsheet winches are mounted on the cockpit coamings, and two Lewmar 7 single-speed winches fitted aft of the mainsheet traveler on the pilothouse roof are used for the mainsheet and boom vang. Provision is also made for cruisers who have a yen to fly a spinnaker, but *Sabine F* is not so equipped.

With just 458 square feet of sail area, the sail area/displacement ratio is a low 11.5. This is a motorsailer, remember, so the engine will be running much of the time ... even when the sails are up.

#### Construction

The hull of the Gulf 32 was molded with alternating layers of hand-laid multi-directional mat and woven roving. The interior was built, according to the owner's manual, "... as a unitized one-piece molded structure" with layers of mat, after which "A layer of woven roving (was) applied to all high-stress areas including water and fuel tank areas, motor mounts, etc." Cabin soles, countertops, and other horizontal surfaces were stiffened with plywood. The interior molding was then fitted into the hull and bonded to it with mat and woven roving at bulkheads and other high-stress areas. The ballast is lead, fitted internally.

The deck is attached to the hull by means of an external flange with rivets on 2-inch centers, a neoprene gasket, and a covering of resin and fiberglass mat. The assembly is concealed by the teak rubrail.

Full-keel sailboats are commonly criticized for being slow and maneuvering indifferently. It is said they require too much bottom paint and so forth. These points may be so, but there are advantages to full keels. They tend to contact rocks more sympathetically than do fin keels. In the case of the Gulf 32, the internal ballast is kept low, as is the weight of the engine and the fuel and water tanks.

#### Accommodations

The companionway closure is made up of a pair of teak-framed glass doors and a lower teak flap that can be opened or shut to thwart incoming water. Three steps lead down to the pilothouse.

At the inside station, the helmsman can stand behind the wheel or sit on

#### **Comments from owners of the Gulf 32**

"I purchased my Gulf 32, Beluga, in the spring of 2013. After having sailed her just one season, I have nothing but love for her. Her pilothouse configuration gives her more cabin room than most 32-footers. I find her to be well appointed and very comfortable inside. She's a wonderful boat to sail. Her heavy full keel keeps her steady in the water. My wife doesn't like to sail aggressively and 'tip' as she calls it, so the Gulf 32 is a great fit for us. Despite the boat's weight, she

is surprisingly fast and nimble and tacks with great ease. I can easily sail her on my own. I've not sailed her from inside the cabin, but in foul weather, of course, it's a luxury to motor her from inside a cozy cabin with great visibility."

-Mark Lechner, Kittery Point, Maine

"We had a 1997 Gulf 32 that, with her full keel, was a slow but solid sailer and very stable. This was my first pilothouse sailboat and I especially enjoyed her inside and outside steering. We had a full dodger covering most of the cockpit — really needed in hot sunny weather. Her cockpit was very large, with long seating on both sides and a full-depth locker on one side that also contained the gas bottles and a pass-through cooler. The inside was nicely done, with a good amount of teak on the cabinets. The boat was designed to be a very comfortable cruiser with many amenities."

-Daniel Bach, Freehold, New Jersey



A small nav desk is located next to the inside steering station.

a chair mounted to a post that passes through the sole and fits inside a hefty steel enclosure in the bilge. A small navigation table with circuit

breakers, battery switch, and engine instruments is to starboard and close at hand just forward of the 6-foot 6-inch quarter berth. Headroom in the pilothouse is 6 feet 2 inches.

Opposite the nav station, a small galley contains a large and heavily insulated icebox with provision for loading ice through the port cockpit locker. A three-burner gas stove is fitted outboard and a small double sink is fitted in a counter that angles toward the boat's centerline.

In the saloon, just two steps down, headroom increases to 7 feet 7 inches. A single settee to port extends under the galley sink to form a 6-foot 6-inch berth, and another settee to starboard extends under the helm station to form a double berth of the same length. Together with a fold-down table, this area becomes the dinette. Stowage is located in cabinets with hinged doors, on shelves behind the settees, and under all the seats. Aside from a vertical stainless-steel rod at the step-down between pilothouse and saloon, there is a conspicuous lack of handholds throughout the accommodations.

It is interesting to compare Bill Garden's drawings with the boat as built by Capital Yachts. *Sabine F* has a 6-foot 6-inch double V-berth in the forward cabin with an accompanying seat. Bill's drawings show two overlapping single berths. His drawings also show an octagonal seating arrangement around a drop-leaf table that's nothing like *Sabine F*'s settee plan.

After 1994, a version designated the Gulf 32 Mk II was built. Among other changes, the dinette was moved up into the pilothouse, the galley was moved down into the lower saloon, the head was made larger, and the well deck was

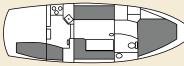
eliminated to allow more headroom in the forward cabin.

#### Mechanical

A 36-hp Universal 4-cylinder diesel engine is located below the pilothouse

Gulf 32





LOA: 32 feet 0 inches LWL: 23 feet 4 inches Beam: 10 feet 0 inches Draft: 5 feet 2 inches Displacement: 16,000 pounds Ballast: 6,500 pounds Sail area: 458 square feet Disp./LWL ratio: 563 Sail area/disp. ratio: 11.5 Designer William Garden

and accessed by lifting hatches in the sole. This provides a virtual engine room complete with automatic fire extinguisher and

bilge pumps. A large manual bilge pump at the lowest level is operated from the cockpit, a heavy-duty electric pump is set at a little higher level, and a smaller electric pump clears the bilge of all but a small amount of water. A 75-gallon fuel tank was originally fitted abaft the engine, but upon discovering a leak, Jack replaced it with a 45-gallon tank forward of the 75-gallon freshwater tank.

#### **Performance**

We took *Sabine F* out for trials on a picture-perfect summer afternoon in Kingston, Washington. Wary of the boat's bad backing habits, we eased her out of the slip and I gave her a good push in the right direction before hopping aboard. Once we were clear of the ferry landing, I took the helm and headed into the wind while Jack went forward to hoist the mainsail. I stopped the engine, set the steering brake, and together we rolled out the jib.

The wind was light but steady, making 1-foot waves. I expected the boat to be rather sluggish in low wind speeds — the opinion of several owners but not all. However, I found this not to be the case. The anemometer recorded a wind speed of between 7 and 8 knots and the GPS recorded our speed over the ground to be right around 6 knots. She had the slight weather helm of a well-balanced boat, pointed high enough, came about smartly for a full-keeler, and held her course as if she were on rails.

When it came time to head home, we rolled in the jib and rigged the lazy-jacks. The mainsail dropped as it should and Jack tied in a good harbor furl as I skirted the crab pots in Apple Tree Cove.

continued on page 63

# Denys Rayner: a sailor's sailor

He founded Westerly Marine Construction and launched a thousand dreams

enys Rayner was born in the outskirts of London, England, in 1908. As a boy, he was smitten with boats, often drawing navy destroyers in the margins of his schoolbooks. In 1925, he joined the Royal Naval Volunteer Reserve (because he had flat feet, he could not join the regular Royal Navy). He took training in navigation, which turned out to be a great choice. When World War II commenced in 1939, he was given command of a unit of five armed trawlers. As the war progressed, so did his commands: corvettes, destroyers, and eventually a group of escorts - all on anti-submarine and anti-mine missions around the world. A decorated officer, Denys retired from the RNVR in 1949 after 24 years of service.

Upon retirement, he took up farming in the "home counties" outside London, as well as writing and, eventually, boatbuilding. His first novel, *The Enemy Below*, published in 1957, recounts his wartime experiences. A movie of the same name starring Robert Mitchum and Curt Jürgens was adapted from the book. Several other books followed, including *The Great Yacht Race* in 1966, about a transatlantic race in 1866. Denys authored other books on sailing, motorboating, and safety at sea.

His journey into boatbuilding began with several small boats he owned, sailed, and maintained in Scottish waters. His father had been involved in sailboat racing, but Denys developed a

BY ALLEN PENTICOFF

passion for small-boat cruising. In 1937,

passion for small-boat cruising. In 1937, he designed, and had constructed, a 4½-ton, 22-foot 5-inch clinker-built auxiliary gaff cutter he called *Robinetta*.

His goal with *Robinetta* was to build a boat that was sufficiently comfortable to please his wife. It had features later found on many Westerly boats: the cabin trunk extended outboard





One of Denys Rayner's earliest designs in fiberglass was the Westerly 22, at left, which had a gunter rig, for easy singlehanding, and generous headroom. The Laurent Giles-designed Westerly Centaur, above and facing page, has the bilge keels that allow so many Westerlys to take the gound in tidal estuaries.

Before he turned to building boats, Denys Rayner enjoyed a long and distinguished career in Britain's Royal Naval Volunteer Reserve during World War II. His experiences formed the basis for several books, including the novel and movie, *The Enemy Below*.

to merge with the topsides at the sheer and it had 6 feet of standing headroom. Denys hauled *Robinetta* when he began his wartime service and sold her in 1946. This stout boat is still sailing today.

#### Drawn back to small boats

While engaged in farming during the 1950s, Denys was asked to build plywood dinghies to accompany plywood camping trailers that were being produced nearby. Once back in the boating scene, he began building small sailboats as well, and formed Beacon Boat Company to sell his boats. He soon returned to his small-boat cruising roots and designed a 20-foot plywood pocket cruiser, the Westcoaster 20, of which approximately 60 were built.

In 1961, Denys designed the one-off plywood, 5-ton Corvette. Although this was a satisfying boat

for the owner — who named it *Danica* — its compound-curve shape was expensive to build, and Denys turned his attention to the new medium of fiberglass. After experimenting with some small fiberglass boats, he and his partners decided a brand-new temperature-controlled boatbuilding facility was the only way to go.

In 1963, his Westerly Marine Construction Company Ltd. began building comfortable trailerable 22- and 25-foot cruising boats near the Solent, a popular sailing area on England's south coast. These boats would also have shallow-draft twin or "bilge" keels that gave them the ability to dry out upright at low tide and still be very seaworthy. His friend Simon Baddeley said the "aerofoil molded bilge ballast keels" are "far more sophisticated than twin fin keels." (See "Westerly Centaur" in the July 2013 issue.) Their market niche was the customer who cared about comfort as much as about sailing ability. From the beginning, Denys sought not only to obtain Lloyd's certification but to exceed the standard. He had some qualms about the as-yet-unproven properties of fiberglass and was not sure the Lloyd's criteria were sufficient

to ensure a sturdily built boat. Because of this attitude, many Westerly boats are still sailing.

#### **Success story**

Soon, Westerly had orders. In fact, customer demand far exceeded production capacity, and the company expanded its facilities and staff rapidly to meet it. During the 1970s, Westerly was Great Britain's largest and most popular producer of yachts. The Westerly 30 was the last to be designed by Denys Rayner. His life was cut short by cancer in 1967. He did, however, live long enough to see two small Westerlys, a 22- and a 25-footer, cross the Atlantic with relatively inexperienced crew, fulfilling his dream and passion of introducing others to small-boat cruising.

Indeed, Denys authored several instructional guidebooks for such adventures: Safety in Small Craft, published in 1961, and Small Boat Sailing, in 1962. In Safety in Small Craft, Denys wrote, "In any reasonable weather, it is the diminutive size of the yacht which makes long passages under sail such thrilling affairs and one of the reasons which I, for one, find the smallest possible craft the most rewarding." He commented



furthermore that lower cost is also a good reason to cruise a smaller boat.

Not to be confused with Westerly Marine Custom Boatbuilders in California, Westerly Marine Construction Ltd. produced 60 different models of boats, ranging from 18 to 49 feet, all of them designed by top naval architects and built to high-quality standards. Many of the models were reworked variations of existing hulls.

Despite its being a profitable company, some bad business decisions and tough economic times brought Westerly Marine Construction down in 1981. The ensuing years brought several buyers, variations in the name of the company, and changes in the product line, or lack thereof, but nearly all the boats were referred to simply as Westerlys.

The true end came in 2000 when no buyer could be found. By this time, most of the molds had been dispersed and/or destroyed. However, many of the stout Westerly line of boats still ply the waters of the world. And for this we can be grateful to Denys Rayner and those who successfully followed his lead.  $\triangle$ 

Allen Penticoff, a Good Old Boat contributing editor, is a freelance writer, sailor, and longtime aviator. He has trailer-sailed on every Great Lake and on many inland waters and has had keelboat adventures on fresh and salt water. He presently owns an American 14.5, a MacGregor 26D, and a 1955 Beister 42-foot steel cutter that he's restoring.

#### Resources

#### Related articles from Good Old Boat

- "The Double Fin Advantage" by Ted Brewer, March 2003
- "Taking the Ground" by Richard Smith, March 2007
- "Westerly Centaur" by Allen Penticoff, July 2013

The Westerly Owners Association: www.westerly-owners.co.uk

American Westerly Owners Newsletter (AWON): westerlyowners@gmail.com

www.goodoldboat.com

**Leech Lines 101** 

Bid farewell to flutter

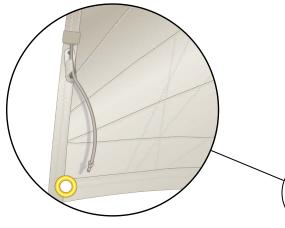
BY DON LAUNER

Bermudan or Marconi mainsail is seldom a straight-sided triangle. On many sails, the leech — the aft edge of the sail — is made convex to add more sail area than the simple triangle would yield. The sail area added outside the straight line from head to clew is called roach.

This extra sail area provides extra power and makes the sail more efficient. However, it would fold over and flap uselessly if it did not have something to support it. That's the job of the battens, which are slipped into batten pockets sewn into the sail. Battens serve a dual function: they stiffen the leech of the sail to support the roach and they prevent the leech from curling.

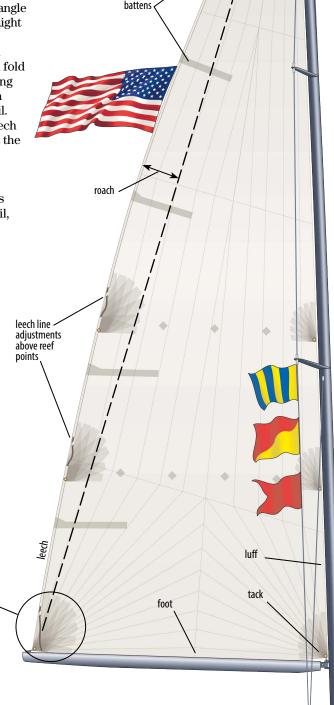
#### **Leech flutter**

For the sail to be efficient, the leech should be as flat as possible and not flutter. Even on a new sail, the leech may flap like a flag in the wind, and this fluttering increases as the wind becomes stronger. As the sail ages and stretches, it will have a greater tendency to flutter. Leech flutter can reduce the life expectancy of the sail and affects its performance as well. It will eventually result in sail damage and the noise can be very annoying to skipper and crew. Leech flutter cannot be controlled with outhaul or halyard tension, but it can be silenced with a leech line, which is probably the least used and least understood line in all the running rigging.



The leech line runs inside the tabling, a narrow strip of sailcloth that's doubled to reinforce the leech. In this example, the leech line, once tensioned, is secured in a small clamcleat.

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#### Leech line

A leech line (also called a leech cord, leech drawstring, or pucker string) is a small-diameter line that runs the length of the leech. When tensioned, it prevents the leech from fluttering.

A leech line is found on most jibs and mainsails. It runs inside the leech tabling, the broad hem that finishes the edge of the sail from the head of the sail to the clew.

While a leech line is used principally to reduce leech flutter and save the material from fatigue, it can also affect the sail's draft, or curvature. When the leech line is tightened, the leech stiffens and curves to windward, giving the sail a little more draft. Tensioning the leech line is particularly helpful in light wind and is increasingly more effective the farther off the wind you're sailing, when the sheet is no longer pulling the sail straight down. The leech line should be used in conjunction with the mainsheet to eliminate flutter and maintain sail efficiency. But it must be used with caution, since it can create a poor sail shape when incorrectly adjusted.

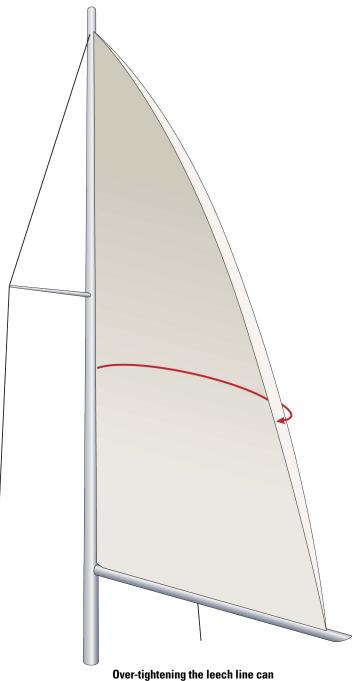
When tensioning the leech line to reduce flutter, the procedure is to first sail with properly trimmed sails. With headsails, be sure to position the jibsheet leads correctly. A lead that's too far aft can make flutter worse. Once the lead is set, adjust the tension on the leech line to reduce or eliminate the flutter — but keep an eye on the leech to make sure you're not overtensioning and causing the dreaded leech-hook. It's better to have the leech flutter slightly than hook sharply to windward. When proper tension has been reached, cleat off the leech line.

#### **Leech line variations**

Leech lines are run two ways. The most common has the leech line fastened at the head of the sail, usually to the headboard, and running down inside the leech tabling to a point just above the clew, where it exits the tabling. A small cleat or jammer for securing the line is often fitted near the clew.

In a less common configuration, the leech line is fastened to the clew and runs inside the tabling to the head of the sail, around a small turning block fastened to the headboard, and down the luff of the sail. This arrangement makes the line adjustable at the mast, rather than at the end of the boom where it's often difficult or impossible to reach. The leech line could also be led from the mast to the forward end of the cockpit.  $\triangle$ 

Don Launer, a Good Old Boat contributing editor, built his two-masted schooner, Delphinus, from a bare hull. He has held a USCG captain's license for 40 years and has written five books. His 101 articles through November 2011 are available for downloading as a collection from the Good Old Boat download website, www.audioseastories.com. Look under Archive eXtractions.



cause the leech to hook to windward.

#### Leech lines on square riggers

In the days of the square riggers, lines called leech lines served a very different purpose than today's leech lines.

The head of a square sail was attached along the length of a yard. The sail had two leeches, one at each end of the sail, and a clew at each of the lower corners.

Attached near each clew was a line that led up to the yard, through a block, along the yard, around another block at the mast, and down to deck level. These leech lines were used to haul the clews up to the yard when the sail was to be furled.

Good Old Boat 17 www.audioseastories.com May/June 2014

# Wrecked in the

#### ... but none the worse for the off-road experience

BY NICK BIGNEY

hat bright October afternoon, conditions were perfect for our Sunday motorcycle ride. We rumbled along for a few miles in the warm sun, looking at the fall colors and soaking in the mountain air. As we banked around a curve, there appeared before us an eye-popping wreck. I put the bike on its stand and we stepped off into the dusty high desert. With an eye out for nasties, we picked our way through the rabbit brush toward a small sailboat perched on the edge of a ravine.

The high desert is not the usual final resting place for sailboats. As we got closer, we could see the bright yellow hull lying on its starboard side in the dirt, almost tipping over into a dry coulee. It looked a little like a plane crash. The boat's rigging was uncoiled like a crazy tangle of steel spaghetti. Colorful bungee cords littered the chewed ground. Looking back toward the road, I could easily read how this sad little drama unfolded.

A bent and detached trailer hitch was still engaged to a 2-inch ball, the lone safety chain sporting a clearly insufficient shackle. Like the path of destruction from a tornado, mangled fenders, lengths of channel iron, and shattered wooden boards marked the path from the boat back to the highway. It was clear that the two-wheeled trailer had apparently flown off the road and into a drainage ditch that stripped the trailer away from the boat like a dry husk. The sturdy boat literally tore the trailer apart as it continued on, skidding on its retracted keel and plowing a fair-sized furrow to where it now lay. One yard more and she may have rolled over into the ravine, but miraculously she had stopped just short. Marooned and abandoned, the boat now lay in the dust after what must have been a dramatic wreck.

#### A wish granted?

We shook our heads. What a shame. For the last two years, Sue and I had been looking for a capable trailer-sailer. Our big boat lived in Rockland, Maine, and, as part-time cruisers, we work in Utah during the winter season. Boat withdrawal is a serious ailment for us.

It's excruciating to be so far away from our beloved floating home for months at a time. We needed a little sailboat to help us endure the separation. As we live near two high mountain lakes, it was easy to imagine spending the autumn weekends anchored

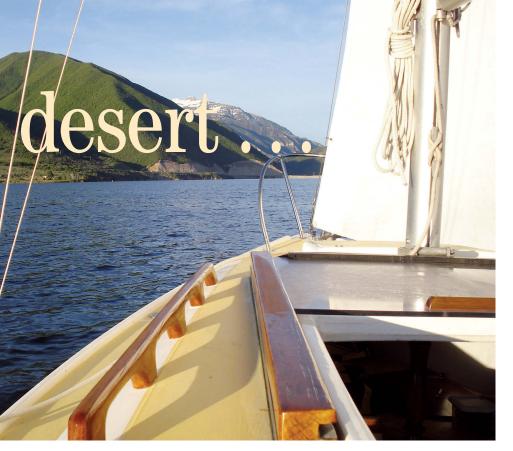
out in deserted coves surrounded by grazing deer and diving eagles. We had searched locally for a vessel, but in vain. We could not find a small seaworthy boat in our price range.

When we followed the trail of destruction back to the marooned yellow sailboat, we noticed that the hull, unbelievably, was still in one piece. It was at least 150 feet from the road, every bit of it tough sledding, so we expected to see a few jagged holes and ruptures in the hull. But as we examined the boat more closely, we determined that the hull-to-deck joint was still intact and the hull, although





Fortuitously, the little yellow sailboat chose a spot to slide off its trailer and into the desert where Nick and Sue were able to rescue her with their hay trailer and other farm equipment, at left. The trailer was in much worse shape than the boat, but that, too, was restorable, at right.



Nick and Sue now enjoy sailing the once high-and-dry Balboa 20 on a mountain lake.

scored in a few places where it had skidded along in the gravel, had no obvious breach.

Closer examination revealed one deep gouge created as the well-built boat tore the front support off the trailer, but in general, the yellow minicruiser looked like it had survived its rowdy trip. The nameplate on the boat identified it as a Balboa 20, a vessel from the drawing board of Lyle Hess, designer of many "skookum" oceangoing craft, including Lin and Larry Pardey's hardy sailboats. There she lay, a beached yellow derelict and a golden opportunity!

Sue rolled her eyes at my obvious excitement. She knew all too well that the steam that was starting to come out of my ears meant a mad adventure was sure to follow. She correctly guessed that this wasn't really a shipwreck at all ... but a boat for sale! It was obvious that the unlucky owner had to get the boat out of its present resting place. He would have to hire a flatbed and a crane of some sort. Then, when he got the boat home, what was he to do with it? It was a little large to be a birdbath. It was our great luck that this sturdy boat was marooned right on our beach. We scrawled a note, included our phone number, and affixed it to the transom, "Will buy boat, as is, where is."

That evening brought a phone call from the boat's owner and, following

Sue's suggestion, I offered him a "reasonable" price. A reasonable price for a shipwreck, that is. Actually, it was a ridiculous amount, but he immediately and gratefully took our offer. We were the surprised and happy owners of a beached Balboa 20.

#### Recovery and a refit

Our four-wheel-drive farm tractor has forks as well as a loader bucket so, while Sue drove out to our new mini-yacht with our hay trailer and farm truck, I put the forks on the John Deere and followed in high gear. We put two slings around our new boat's yellow belly and the forks creaked as she was lifted from the high desert floor. She had no hidden damage to the hull and, as she rose from the desert sand, we were gratified to see that the swing keel was still firmly in place. Sue backed the flatbed under the hull and we lowered her gently onto half a dozen fenders. We loaded the mast next, and Sue took off slowly for home with our prize, the tractor following in formation carrying the parts of the trailer that could be loaded on the forks.

The boat trailer seemed at first to be nothing but scrap steel, but a close examination revealed promise in that pile of twisted wreckage. We brought the bent metal home and blessed our luck that the trailer axle was still relatively straight and the wheels and the brand-new tires were unharmed. The rest of the trailer was not so lucky. The frame was twisted and buckled, and jagged tears showed where welds had failed and cross-members had torn off. There was still one lone upright remaining where a board had once been attached to cradle the hull. The rest of the uprights had either been torn loose or mowed flat. The frontmost support, where the bow had once rested on a rubber roller, was torn completely off the frame, and we found it lying in the dirt some yards away from the wreck.

Starting early the next Saturday morning, we carefully straightened each bent piece of the trailer using a coalfired forge and a large anvil. The trailer was constructed of thick channel iron, so blacksmithing techniques worked well in reshaping and straightening each part. We "repaired" the smaller parts of the trailer frame on an anvil with a sledgehammer and torch — a delicate operation to be sure. With a MIG welder, we reconstructed the trailer, complete with a new winch and new 2 x 8 boards for the cradle.

At the end of a long Saturday, the heap of metal was once again welded together, and we were pleased to see that this jigsaw puzzle now looked a lot like a boat trailer. With a coat of black paint, it was as good as new. It was an exciting moment when the little Balboa once again met the trailer, settling into its place as if it had never left.

The boat itself was next. The mast was straight, the rigging unkinked, the boom and sails fine. The rudder was not only perfect, it was still attached to its brand-new laminated tiller. The little roller furler was worth several times more than we paid for the boat and the cockpit cushions looked new. The hull had a small puncture hole at the waterline, a tiny knife slit, and

the galley countertop had cracked where the hull side flexed as she landed hard in the dirt. A few hours of glasswork made her sound again, but the worst of the restoration wasn't due to the wreck at all.

It wasn't the gouges in the hull or the mangled boat trailer, but the neglected interior that made us question our sanity in messing about in this old boat. The carpeted cabin smelled as bad as it looked. Poorly bedded deck hardware had resulted in small leaks that had led



After boat and trailer were restored, it was time to check out the sails.

to unappetizing mildew and stains under the carpet. As if the carpeted interior wasn't a bad enough idea, mice had held council in the bilge over the summer, lending a truly uninhabitable air to the interior.

#### Sanitized and restored

Holding our noses and donning rubber gloves, we tore out every bit of the original carpet, exposing underlying insect nests and much unidentifiable bilge detritus. We bought bleach in mass quantities, and for the next few days we bleached the cabin sole, cabin sides, bow, stern, quarter berths, countertop, cabinets ... and then we did it again. After removing everything portable from the interior, we put a hose in through the companionway and filled her six inches deep with bleach water. It was bath time, and she was her own bathtub. We let her soak. After we siphoned the water out and vacuumed the bilges dry, the interior became much more appealing. She appreciated the attention. All she needed was a day in the warm sun with the hatches open and she smelled as sweet as a desert rose.

Finally she was habitable. The original contact cement that had held the carpet to the hull had hardened to the point where some work with an oscillating sander left a pleasing orange-peel finish, a fine texture for new paint. We donned our Tyvek and within a couple of hours had painted the overhead

and V-berth white, making the interior seem much lighter. We then replaced the carpeting on the cabin sides with bright cedar battens screwed onto expanded PVC strips glued onto the inside of the hull. Every piece of deck hardware, including the mast step, bow

pulpit, and genoa track was re-bedded with 3M 5200 and reinforced with proper stainless-steel fender washers or backing plates made in our machine shop. We repositioned the chainplates and bolted them on the outside of the hull. Pressure washing her outside proved her to be dry inside. She was ready to launch and she was really looking good.

Our little yellow mini-cruiser now sails in our high mountain lakes during the cool spring and summer months and we never cease to be amazed at her seaworthiness. We fondly regard her as our big cruising boat's little sister. Setting a small Bruce anchor off her robust anchor roller, we stay overnight in small calm coves, watching the sun rise and set over the nearby mountain peaks. On such quiet evenings, we sit together in the cockpit before retiring, savoring the fruits of our imagination in restoring the small yellow shipwreck. We realize once again that the universe always seems to provide sailors what we need as long as we have a little vision, a little inventiveness, and plenty of sweat.  $\mathcal{A}$ 

Nick Bigney grew up in Boston and spent his youth on the ocean. Sailing came naturally to the great-great-grandson of a Yankee privateer who died of injuries suffered in the War of 1812. Nick imagines Captain Tom Duncan striding the deck, proud to have at least one of his progeny under sail. Nick and his wife, Sue, have homes in Texas and Utah and boats in Maine and, now, Utah.

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#### **SAILING INSTRUMENTS**

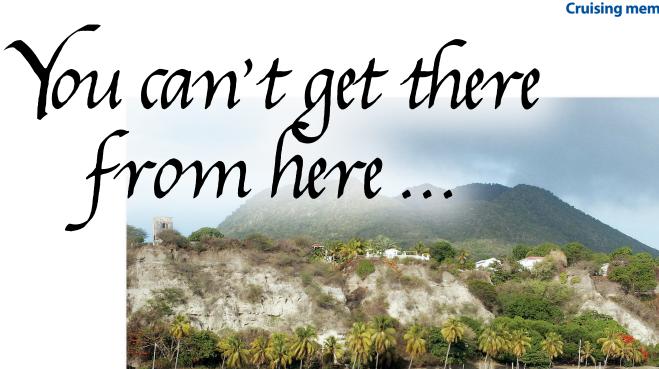
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fly with his girlfriend to meet us in Grenada. The fact that we were still working in St. Croix, almost 500 miles away, was a minor detail. Our hurricane season plan was to sail south like we had in previous years. Being in Grenada by late June would be no problem.

BY CONNIE MCBRIDE

but you can still enjoy the journey

Though we were conscious of our deadline, Dave had projects to finish and we had a cruising kitty to fill, so by the time we were ready to ride the next available weather window south, we had only a week to get to Grenada, a five-day sail away.

Or so it seemed in April.

"No problem," we thought, as we sailed out of Christiansted Harbor. Seven miles to windward, however, we rounded the corner of St. Croix into the full force of the Caribbean trade winds. The winds and waves that had sounded reasonable while we were sitting in the harbor listening to the weather forecast were miserable in reality. After another

us across the Eastern Seaboard and island hopped across the Caribbean, chasing us, all because we couldn't get to where we had planned to be. But missing our mail and educational materials was not nearly as stressful as having our children fly to meet us on an island and then being unable to get there ourselves.

In April in North Carolina, a family reunion in June had sounded like a fantastic idea. Our oldest son, Nick, a freshman in college, was going to

David, Garret, Connie, and Dave, pictured under a favorite rock in The Baths, hiked up The Quill, an extinct volcano on Statia, at top, while waiting for a diverted Nick to arrive.

e should have known better. Over the years we have tried to plan ahead and have mail waiting for us when we arrived somewhere, but we soon discovered that pre-planning in this way guarantees that we will never arrive at that destination. Anchorages that look perfect on the chart are filled with mooring balls. Post offices that used to be on the water are now 5 miles inland. Weather windows close unexpectedly. Boxes of schoolbooks for our three boys have followed

Good Old Boat 21 www.audioseastories.com May/June 2014



hour of bashing to windward with a 6-foot swell from one direction and a 4-foot wind wave from another, our captain made an executive decision. No family meeting. No vote. It was a statement. "We're going to Virgin Gorda to get a better angle on the wind and seas. Tomorrow. Tonight we sleep at Buck Island." A five-day trip to Grenada ended in five hours, within sight of "home."

#### **Accidental tourists**

Spanish Town, Virgin Gorda, has become one of our favorite anchorages in the BVI. While we waited for the worst of the seas to subside, we celebrated my 40th birthday. We walked out to The Baths, stopping along the road to find the hollow rock we had

discovered a few years earlier. With only a 2-foot opening at the bottom, it was difficult to climb into but, once we were inside, there was standing headroom. While I set up the camera to take a family picture, my heart ached. There were only four of us. The fifth one was going to be in Grenada in three days. We were not going to be there to meet him.

Back in the anchorage, we snorkeled among the rock formations, where 15-foot-tall boulders

jutting toward the surface of the water created a funhouse effect as we followed schools of fish through the maze. After dinner and birthday cake, our middle son got online and messaged Nick, who wished me a happy birthday and asked where we were. "What are you doing there? We'll be in Grenada in a few days!" I promised we would get there as soon as we could and hoped he was resourceful enough to figure it out until we did.

We left Virgin Gorda for Grenada the next day, knowing the kids would

On their way, supposedly, to Grenada, the crew of *Eurisko* made little progress against headwinds and ended up in Statia, where the boys clambered around the roots of giant trees, at top and center. Saba, with its 800 steps, at left, provided respite for one night.

land before we arrived but confident they would be "homeless" for only one night. Our passage ended two days later ... in Saba. The 8-foot seas and 18 knots straight out of the east we had expected, but the constant lightning from the squalls all around us made us nervous, so we altered course once again.

Clouds obscured Saba's 3,000-foot precipice, but when we picked up a mooring in Ladder Bay, we were within sight of the 800 stairs for which the bay is named. Leading past the old customs house and up to the road, these steps cut into the rock were, until the 1970s, the only way to get supplies onto this 5-square-mile island. On a schedule, with a stranded son, we chose not to go to shore this trip. Instead, we got a good night's sleep and vowed to leave for Grenada in the morning.

The chop caused by the Saba Banks the next day continually pushed our bow to leeward. By noon, we were 13 nautical miles west of our rhumb line. When we tacked, Statia was directly off our bow. Like an oasis to a desert wanderer, it beckoned to us. After getting slammed by a severe squall and seeing a series of squall lines approaching, we knew we were going to be in for a long and uncomfortable passage. As we sailed near our rhumb line and were preparing to tack back out to sea again, Dave asked the question we were all considering.

"Do we want to keep beating ourselves up or are we going to stop in Sint Eustatius?"

"What about Nick?" I asked.

"We'll fly them up here and sail them to Grenada to catch their plane home. That buys us another week to get there. He doesn't even know where we are right now."

#### More sights to see

Once we were safely in Statia's rolly harbor, we had a few days to waste while we waited for the next series of flights from Grenada to Statia. Never ones to sit idle, the four of us became tourists. We explored the waterfront that was once the site of the busiest port in the Eastern Caribbean. During the 1600s, thousands of ships brought goods to Statia's shores to be sold duty-free and then carried away on other ships. Part of the old commercial port is still visible from the harbor.





On our stroll toward town, we found the Old Slave Road. As I walked up the steep trail, I found myself thinking of those who had been forced up this long path in previous centuries. It was along this road, built by slaves in the 1700s, that slaves brought to the island were led from the port to the trading block. Today, the road ends at the edge of town near Fort Oranje, a fort built by the French in the 1600s that has been fully restored and is well worth exploring. We spent more than an hour wandering around it and admiring the spectacular view of the harbor.

When we cleared into Statia, we had purchased passes allowing us to climb the Quill, a 2,000-foot extinct volcano within easy walking distance of the harbor. After nearly an hour of moderate hiking, we reached the rim of the volcano. We were thrilled to find a path leading into the crater, though the trail became more difficult for the descent. Another world awaited us at the bottom. Even the intense tropical

sun cannot penetrate the dense foliage of the rainforest, so the crater is in an eerie eternal twilight. Boulders the size of houses lay where they had landed centuries ago, and enormous trumpet wood trees formed bathtubs with their roots. Our youngest climbed inside a "cage" of tree roots that had grown around a trunk that had since rotted away. We were reluctant to leave this dreamland, but the several-hour hike back to the boat lay ahead.

Three days later, the kids caught a plane out of Grenada. They had spent their days exploring Grenada's beaches and waterfalls and their nights sleeping at the outdoor airport and in the spare bunks of sympathetic cruisers.

Left to their own devices, they had traveled by bus and foot, eaten in the local restaurants, and within a few days felt like they had become part of the community. They were excited to finally join us on the boat, but glad they had been forced to live on their own for a while on a Caribbean island.

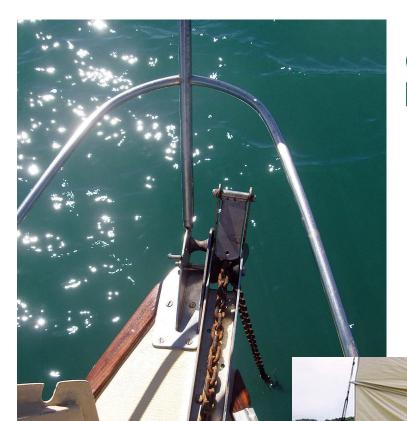
Their flights took them to five islands where they cleared into and out of four countries in one day. They both agreed that the unexpected beginning of their vacation had the best adventures of the entire trip. And even though I would rather have been in Grenada to meet their plane like a responsible parent, I had to admit that the stops we had made along the way were worth the extra worry, work, and money to finally get our family back together.

Cruising is not always the relaxing lifestyle we had dreamed of. Quite often you can't get to where you most want to be, but if you take the time to enjoy the journey as well as the destination, sometimes that's OK too.

Connie McBride and her husband, Dave, have been cruising for 12 years, most recently cross-country in a van. They are now back on Eurisko and readying her for the next adventure. Connie writes about the cruising life at www.simplysailingonline.com.







# Strength savers

Adapting a boat to a lightweight crew

BY ANNIE HILL

t the age of 55, I decided it was time for me to have my own boat so I could do what I wanted... in my own way. Although I'd been living on and sailing boats for the previous 35 years, I had never been a singlehander. I realized this would be a very different situation from sailing with someone else.

I'm 5 foot 1, small-boned, and not particularly strong. At 55, I was also past the first flush of youth and, although fit, had to be aware that I was unlikely to get much fitter or much stronger in the next few years. On the other hand, I could see no reason for my health to suddenly deteriorate as long as I continued living aboard.

For some time, I looked at how other people got around the problems of handling gear on their own, particularly in such situations as dragging the anchor. There seemed to be two approaches. The first and more popular these days was to use technology to assist. The second approach was to

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Annie's junk rig is easy for a woman of slight stature to handle, above, and the chain pawl, at top, takes the weight of the anchor and chain as she hauls it aboard.

fit the boat and type of sailing to the sailor's physical circumstances.

The first approach has two drawbacks: the gear is expensive and it leaves you terribly vulnerable if it should fail. For example, I might choose to fit roller-furling gear to my jib to avoid the physical labor of lugging sailbags around and the problem of trying to muzzle a large sail in a sharp, unanticipated squall. So long as my roller furler works, this would be a good solution, but if it failed, I'd be left with a very large sail, completely out of control and, because it's in a groove rather than held on with hanks, a sail that's very hard to lower on my own.

Another apparently obvious piece of gear is a windlass. These days, manual windlasses are rare, but an electric windlass relies on a fully-charged battery at a minimum and its own perfectly functioning electric motor. If it goes wrong, I wonder whether I'd be able to haul up the anchor and chain without a problem. What's more, all windlasses come with a high price tag.

So I considered the second approach, which fits in better with my general approach to life and with my budget. I began my search for a boat I could handle with the minimum of sophisticated technology and within the constraints of my size and strength.

#### Capable and manageable

This boat had to be a capable wee cruiser. Not only might I get caught offshore, but I might also want to venture farther afield in the years ahead. I needed a place to sleep apart from the saloon, a head, a galley in which I could cook proper meals, and a saloon large enough for company. I wanted a pleasant cockpit so I could enjoy sunny afternoons with a book. I wanted a reliable engine so I could get into an anchorage when the wind died. I wanted to be sure that once the hook was down, it was going to stay put. Furthermore, I needed a rig that was easy to handle and capable of dealing with winds of up to gale force if necessary, but also one that would be a pleasure to sail in the light conditions I prefer.

#### **Ground tackle**

I decided the boat would be of moderate to light displacement and no more than 28 feet. This would mean I could fit over-sized ground tackle that I could handle without a windlass or undue risk to my hands. (My fingers tend to get nipped by %-inch chain). Coming from an offshore background, my instinct is for good heavy anchor gear. I chose a 25-pound Manson Supreme anchor and 80 feet of %-inch chain (backed up by lots of ½-inch nylon).

Thus far, I have been anchored in some pretty windy conditions and never budged. My surprise at this is less than it was. Looking at other boats, many are 10 feet longer with three or four times the displacement of my Raven 26, yet they use the same size chain and an anchor only 10 pounds heavier. It is wonderfully reassuring to have good gear down when the wind gets up, yet it's easy for me to haul it up. In deep water, I take the nylon rode back to a self-tailing winch on deck and crank away until the chain comes over the chain pawl at the bow roller.

The chain pawl is the real key to handling my anchor safely and easily. As I pull in the chain, the pawl skitters along the links, but the moment I stop and ease away, it jams between two links, securely holding the chain. That way I never have to hold the weight of the anchor and chain. I expend only the amount of energy needed to raise it 2 or 3 feet at a pull. It's a brilliantly simple system.

#### Junk rig

The next thing I needed was a simple rig. A quick glance at what was available soon made me realize that my choice was Bermudan, Bermudan, or Bermudan. As I noted in "Building a Junk Rig" in the March 2013 issue, I belong to the tiny minority of sailors who don't like Bermudan rigs. I was repeatedly told it was an easy rig to sail and I'd have no problems. While this may be true for most people, after owning the boat for several months, I realized I was never going to be converted. My alternative was to convert the boat instead.

When it comes to making the boat easy and safe to handle, fitting a junk rig is the best thing I've done. The first half of the sail is easy to raise and this gives me sufficient sail area to be able to sail out of my anchorage. I have a small self-tailing winch fitted to the coachroof and generally use this to pull up the rest of the sail while I steer with my foot on the tiller!

To reef, I lower away on the halyard until I have the sail area I want, and then sheet it in again. Before anchoring, I usually drop a few reefs to slow down and then maneuver my boat to

Self steering is esssential for the singlehander, at top. The ability to move at some speed (stern first, yet) when laden with two large men and a dog, plus the fact she could pick it up and carry it, sold Annie on this 5-foot 1-inch dinghy, at right.

the chosen spot before lowering the rest of the sail and walking forward to drop the anchor. To complete the stow, I haul in the sheet and tidy away the rope ends.

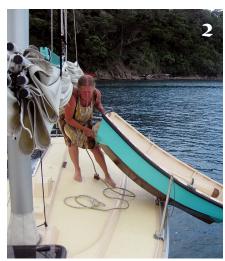
#### **Self steering**

Saving strength is not only about lifting, pulling, and hauling. It's about general over-exertion. For me, one of the more important pieces of gear that prevents me from getting too tired is good

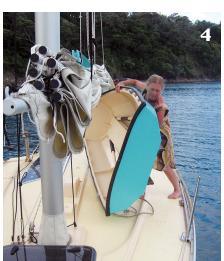
















Being able to easily pull her dinghy on board is important to Annie. The first step is to drop the lifelines (1). She then hauls the boat over the rail (2). Once the balance point is inboard, she turns the dinghy around on the deck (3). Because it's so light, she can then flip it over (4) and maneuver it into postion (5), where she lashes it securely (6).

self-steering gear. Fantail came with a very good and useful electric autopilot. But it can't work with a flat battery or be repaired on board, so I wanted the simplicity and security of windvane gear. My good friend David Tyler, on Tystie, is an expert on this topic and, after foraging around in his lockers, came up with several bits and pieces to get me started.

I made a drum from glass and epoxy and sewed a piece of nylon to cover a framework. This produced a lightweight vane that gives me a marvelous hand at the tiller whenever I want to do something other than steer. It also helps when sailing off my anchor.

Since the junk rig is self-tacking, I set up the self-steering gear to take me out of the harbor on my tack of choice. I haul the anchor, pulling in the slack as the chain snubs the bow. As the anchor comes off the bottom, we start sailing. If we're on the "wrong" tack, the self-steering puts *Fantail* about while I cat the anchor and wash down the mud. Back at the helm, I raise the rest of the sail at my leisure, trimming the self-steering gear more accurately.

Perhaps the best thing about my windvane gear is its tireless concentration when sailing to windward. In this situation, I want the boat to be sailed as effectively as possible, and the self-steering does a far, far better job than I do, distracted as I am by pilotage, watching the scenery, the need to get something to eat or drink, or getting out of the sun or rain.

#### A handy dinghy

Getting to and from the boat is another topic that has caused me a lot of thought and not a little expense. I intended to spend a lot of time hanging on my anchor, so a good dinghy was essential. Inflatable dinghies are safe and, at least in the smaller sizes, light. But they are neither pleasant nor efficient to row. If you fit an outboard motor, you lose the advantage of a lightweight tender and are once again relying on technology to get you safely back on board. I chose a 6-foot 6-inch dinghy, but it was far too heavy.

An ingenious friend designed and helped me build a folding dinghy.

However, in an effort to produce something that would row well, we made it too long. The end result was effective and could be assembled in a couple of minutes, but it was too big for me to handle ashore and getting it on board one dark and rainy night (when I had foolishly left it in the water) was fraught with anxiety. I had to pull it about a foot farther than I really could manage to get it past its balance point and safely on deck, and if I didn't manage that, water would sluice over the stern and flood it.

Fortunately, I happened to mention the problem to Kiwi designer John Welsford. With a twinkle in his eye, he said, "Well, I think I may have the solution to your problem." And so he did. It was a 5-foot 1-inch dinghy that's perfect for me and so lightly built I can rest it on my shoulder to carry it up the beach. It's a real dinghy, though. It rows well even in a lot of wind and

has carried two large men (and a dog!) without difficulty.

The trick of getting such a dinghy on deck without using a halyard was one I picked up from Maurice and Katie on *Nanook of the North*: drop the lifelines and pull it in over the rail, protected with plastic tubing. Once on deck, this tiny cockleshell can easily be positioned with plenty of room to walk around it.

#### **Accepting limitations**

I realize that Ellen McArthur isn't much taller than I am, yet she can sail a 60-footer singlehanded without batting an eyelid and climb the mast in a gale of wind in the Southern Ocean. But I'm not Ellen. I'm an ordinary woman who wants to live independently afloat. Some people might feel it unlikely that 26 feet could provide a comfortable home, but my boat suits me perfectly.

It seems more sensible to work around your limitations than to try to circumvent them with gear that could possibly let you down at a crucial moment. The simplicity of living as I do is extremely satisfying and, because there is less to maintain, I have more time for sailing ... or simply loafing in the cockpit with a good book!

Annie Hill has lived aboard since 1975 and doubled the Atlantic before the age of 21. She has sailed more than 160,000 miles and crossed the Atlantic 17 times. After crossing the Pacific in 2006, she settled in New Zealand in 2009 and bought her 26-foot Fantail. After some time in South Island, she sailed to North Island where she happily lives and sails singlehanded, at times in the company of other junk rig "junkies." Find her at http://anniehill.blogspot.com.







## THE GADGET-

Tablets and laptops and smartphones, oh my!

BY PAUL CALDER



ot long ago, I had the pleasure of helping to sail *Alaria*, a Pacific Seacraft 34, from Maine to the Caribbean. The other members of the crew, Bob Steneck, Ansey Sawyer, and Curtis Smith, were all in their sixties, making me the youngest by nearly four decades. This was part of the appeal. I signed on for the passage expecting to learn a bit about offshore sailing from these "good old guys." And I did, of course. The bit I wasn't expecting was an education in the many uses of electronic gadgets on a cruising sailboat.

On my own boat I'm a bit of a Luddite. Since that term is often misused, let me clarify. The Luddites, a band of 19th century machinerysmashing textile artisans, were not opposed to technology in principle, nor were they unskilled in its use. They were rejecting (with sledgehammers) the introduction of machines that were rendering their hard-earned skills obsolete. I'm not about to take a hammer to your chart plotter, but I am wary of the sometimes unintended changes

technology can make in the ways we sail our boats. So on my boat I keep electronics to a bare minimum.

Alaria was a brave new world for me. We did everything electronically, and at any one time probably a half dozen gadgets were either charging or running. We downloaded GRIB files onto iPads and iPhones for weather forecasts, then plotted our progress with vector and raster charts on the same devices, comparing them to the dedicated chart plotter. This track was uploaded in real time to a website so families and friends could see our progress — an automatic feature of our DeLorme inReach satellite communicator. We took high-definition video with tiny GoPro cameras, then edited these and uploaded them to the Internet on high-powered laptops using a Wi-Fi antenna that we hauled up a flag halvard. We also carried all the trappings of modern life including smartphones, tablets, and e-readers.

This sounds like a lot of tech for a small sailboat. It certainly looked like

it when I piled all the devices up for a photo, but not one of these gadgets is unusual on a cruising boat today. For navigation, communication, and safety at sea these devices have become the primary tools of many modern sailors. Few would leave port without at least a couple of them aboard.

#### Apps for everything

So how did all this technology affect the way we sailed *Alaria*? Mostly, it was useful and much more versatile than I was expecting. With the many gadgets, we were able to do all the routine cruising activities: downloading tide, current, and meteorological data; plotting routes; and writing blogs and emails to keep in touch with home. But we also used some very innovative and rapidly evolving technology that has been around for just a few years.

For example, ActiveCaptain is a program for computers, tablets, and smartphones that gave us "crowd-sourced" information at each of our destinations and helped us answer

FILLED BOAT

questions like "Where is the chandlery in Bermuda?" or "Which side of St. Maarten/St. Martin (the island is half Dutch and half French) is a better base for boat work and grocery restocking?" If you download the ActiveCaptain files before heading out, you can retrieve all this information without an Internet connection.

Weather apps allowed us to download GRIB files and watch a simulation of our projected track through eight days of wind and wave forecasts. Other apps that fell somewhere along a curve between useful and merely entertaining were anchor drag alarms, programs for crunching celestial navigation data, sailing tactician apps aimed at racers, and a sky map that labels the stars of the night sky and is calibrated to show the area you point to with your smartphone.

We carried a DeLorme inReach satellite communicator that uses the Iridium network to track your position and send out an SOS if needed. It also

sends and receives short text messages. We used the text message feature to receive brief mid-passage weather reports and routing advice at a fraction of the cost of a satellite phone or SSB radio installation. Considering that we were making open-water passages of up to nine days during hurricane season, Bob decided this feature alone was worth the \$300 price tag. The inReach tracking also allowed our friends and family to know exactly where we were at all times by tracking our progress on an online map. This was a bit embarrassing when we got stuck in light headwinds two days out of Bermuda and our track zig-zagged back on itself, but it was greatly reassuring for the old guys' wives to know just where they were.

Alaria is equipped with an AIS receiver tied into the cockpit-mounted chart plotter. It told us the movements of most commercial shipping and many pleasure boats within 10 miles. We also had four personal AIS transponders, small devices that clip onto a belt or inflatable life jacket and allow precise tracking of an MOB. Though by no means essential, the AIS was very reassuring in passing situations with larger vessels, not least because it

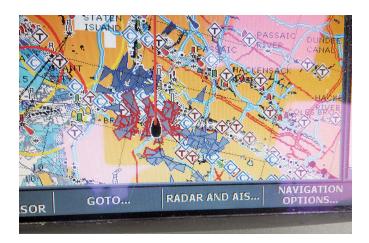


#### Digital disagreements

We live in an era in which the value of information is nearly sacrosanct and it is generally assumed that more



Using their laptops, on facing page, Bob Steneck and George Stoyle (who joined Alaria after the long haul) are together taking up more power than all the basic boat systems. The crewmembers' laptops, iPads, smartphones, tablets, e-readers, and other devices, far left, cram a lot of function into a few small packages. Each one of them comes with a bagful of cables and accessories. Charging and data cables for the multitude of devices hang at the ready, at left.





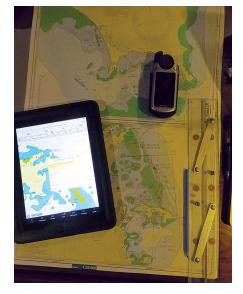
information is always better. On *Alaria*, we were more connected and more information-saturated than I have ever been on a sailboat, and this was generally to our advantage. But all this information was not unequivocally better for us. Useful as it was, our glut of technology changed life on the boat in subtle ways not always for the best; it could be unreliable, distracting, and even a bit dangerous.

Our various electronic charts sometimes showed significant differences of opinion, for example, and we had occasional bogus positions from some GPS devices. Discrepancies between chart editions or publishers, and occasional plotting errors, are not unusual — even with paper charts and more traditional navigation techniques — but they can take on new significance in the digital age. Minor errors in vector charts or electronic glitches can be critical when we use the extreme accuracy of this technology to sail imprudently close to hazards, as many of us are occasionally wont to do.

The GPS in our inReach was prone to temporary position glitches. On several occasions, we fielded concerned calls from friends and relatives who thought we had run into some disaster after seeing our little blip recorded on dry land. My plan to prank our families by sending the inReach along with a crewmember who had to go to Oregon for a few days was vetoed, unfortunately.

#### **Digital distractions**

That can be a problem with technology. These tools are so much fun, it's hard to resist playing around with them.



Many a coastal sailor has been appalled to witness the watchkeeping habits of offshore passagemakers, but the fact remains that there simply isn't much to do on night watch in fair weather. When counting stars gets monotonous, technology can provide a welcome distraction. Occasionally, on calm nights, iPads and tablets made their way to Alaria's cockpit, where they may or may not have been used to watch a movie or two. It was a pleasant way to break up a watch, but it is a delicate balance. Oddly enough, it seemed to be mostly on these calm nights that the wind would "suddenly" pick up and catch the person on watch unawares.

We didn't just carry our technology with us, we also used it to connect to home. At anchor, we would hoist a Rogue Wave Wi-Fi antenna on a flag halyard and this gave us Internet access in most places we stopped. My favorite Every red triangle on the AIS display of New York Harbor is a "dangerous target," above left. Alaria's crew still used paper charts. Curtis used the electronic charts to track Alaria's progress and record it on a small-scale paper chart, above right. When planning approaches to narrow channels in coral reefs, the crew compared all the charts they had available, at left.

use for this was Skype calling. Even in the Caribbean, we were able to make phone calls to the U.S. for a few cents a minute. But our after-dinner conversation was sometimes cut short by the appearance of the Wi-Fi antenna and, although we found connections in surprisingly remote locations, the availability of a signal could be a factor in our choice of anchorage or even our cruising plans. Since this was primarily a research trip to study coral reefs, the Wi-Fi antenna was an indispensable tool, but having Internet access aboard changed more than just our work habits.

This was true for most of our "work" gadgets. Most tools on a boat serve a single purpose: a chart tells you where you are and where you might go, a wrench applies force, a stove feeds the crew. Electronic devices are different. An Android tablet can be used for navigation and weather forecasting, but with it you might also call family, watch a movie, or identify stars. While you're at it, if you're able to download emails as well, you might then feel obligated to reply to them and, without meaning to, you are soon hard at work and oblivious to that lovely little cove where you're anchored. These new tools are incredibly versatile and powerful, but



With so many gadgets and cables aboard, tangles were inevitable, near right. A cheap low-powered inverter, far right, can be an efficient way to produce AC power to charge electronic devices that require it.

for those of us who take to sailboats at least in part to escape the stifling connectedness of shoreside life, they are sometimes more than we bargained for.

#### **Electrical consumers**

Furthermore, they run on electricity, ever a precious resource on a cruising boat. Before the start of this trip, Bob did some careful calculations and decided Alaria should have more passive power generation. He installed a large solar panel and a wind generator, hoping to get away without having to run the engine to charge batteries. I expect this would have worked, if it weren't for all the gadgets. When the

wind picked up, we generated power without the engine, but more often than not our gadgets sucked it out of the batteries. Most of these electronics seem to use little power, but some were heavy hitters. There were also losses and idle drains to consider as many of the devices were run or charged through inverters.

I grew curious about where our electricity was going and devised a simple test. I switched off the wind generator, covered the solar panels, and turned off every circuit. Then I plugged in each device by itself and recorded its power consumption as relayed by the Xantrex monitor. Whenever possible,

I recorded current draw while turned off and charging, while plugged in and in use, and while plugged in and being used on high power (such as while watching a movie). For items that could charge with DC or AC current, I measured power consumption with and without an inverter in the system, and I measured the idle drain of our two small inverters. I wasn't going to get lab accuracy this way, but the test worked well enough to get a sense of which items are the big power consumers. The results are in the table.

While these results were broadly predictable, they were nevertheless interesting. I hadn't expected small

> items like smartphones or cameras to use much power, but I was particularly impressed with the low power requirements of the tablets and the HP Mini. The Mini is my "netbook," a very small laptop. Apple products fared particularly well on the test. While the iPhone sipped a fraction of an amp more than the other smartphones, the iPad was very efficient and the Macbook Pro used less than half as much power as the slightly larger Asus laptop.

This test also showed the efficacy of carrying one or more small inverters aboard. My boat has an 1800-watt Xantrex inverter/charger wired to outlets in the cabin. That

Gadgot nower concumption

DEVICE	ON CHARGE	TURNED ON	HIGH USE	IDLE DRAIN	DIRECT DC
StatPower inverter (150 watt)	N/A	<.5A	N/A	<.5A	_
APC inverter (75 watt)	N/A	<.5A	N/A	<.5A	_
Rogue Wave Wi-Fi with router	N/A	.7A	N/A	<.5A	_
Asus laptop 15.4" screen	3.5A	6-10A (Avg 7)	10A	N/A	_
Macbook Pro 13" screen	1-3A	2-3A	3A	N/A	-
HP Mini 1000 Netbook	<.5A7A	1.5-2A	2A	N/A	-
Nexus 10" tablet	<.5A	.7A	1A	N/A	_
iPad 3	<.5A	.47A	1A	N/A	-
Nexus 4 smartphone	<.5A	<.5A	N/A	N/A	<.54
iPhone	.7A	.7A	N/A	N/A	.5/
Samsung Galaxy S4 smartphone	.5A	.5A	N/A	N/A	<.5/
inReach	<<.5A	<.5A	N/A	N/A	_
Kindle	<.5A	<.5A	N/A	N/A	-
GoPro	<<.5A	N/A	N/A	N/A	-
Sony digital camera battery	<<.5A	N/A	N/A	N/A	-

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much juice is very nice when I run power tools, but it comes at a price — my inverter draws 1.5 amps when it's on. That's not a lot of power, but it is significant over time. If I used this inverter just to charge my HP Mini or a tablet, I would be more than doubling the power consumption of that device. A small inverter like the ones on *Alaria* can charge a laptop or tablet

and will consume only a fraction of an amp. These inverters are available at auto parts stores. Even marine-grade versions cost less than \$50.

Most phones and tablets can also be charged directly from the DC system using a cigarette-lighter-type adapter. This is slightly more efficient than using a small inverter to charge with AC power.

Laptops were the big power consumers aboard Alaria. The 15-inch Asus took a steady 7 amps, more than our refrigeration compressor! Admittedly, this was a high-powered laptop used for video editing, but consider that many sailors keep laptops running on passage and use them for navigation. Even with a more modest computer, this can account for up to 150 amp-hours a day, more power than a lot of boats can passively generate when under sail. A smaller tablet-type device can serve the same purpose for less than 20 amp hours a day and can cost as little as \$100. With a chart plotter in the cockpit and vector charts on a tablet, we were able to turn off the laptops when passagemaking and rarely had to run our engine for charging.

#### Navigation by tablet

32

Not all tablet navigation apps are as good as the best ones available for laptops, but they are rapidly improving and are much cheaper



With all the devices drawing on the boat's batteries, Bob had to keep an eye on their state of charge, above. Bob at work at the nav station, below.

than computer software. Some are free and plenty good enough to serve for backup navigation. Android devices and iPads have plenty of navigation and sailing software available, all of which can be run on smartphones as well.

Accurate navigation calls for an external GPS, yet another device to buy and something else that could break, but the same is true of laptop navigation. The price of a reliable external GPS is around \$100. High-quality

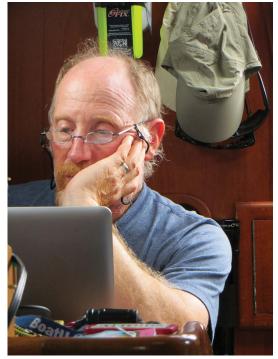
vector charts for much of the world can be downloaded and cost something like \$30 for a continent's worth. The availability of charts for a fraction of what they cost only a few years ago makes this a particularly attractive option for a small cruising boat where system costs and power consumption are

primary considerations. Personally, I think this is a game changer for auxiliary navigation devices on small vessels. My next boat purchase will be a tablet with an external GPS and charts for the U.S. East Coast and Caribbean. The whole package should run less than \$300! While I'm trying to learn celestial navigation and use it with my paper charts, the GPS, tablet, and charts will be my nod to modern navigation, the electronic method I learned about from sailing with the old guys.



There's nothing new about technology changing the way we sail. This has been happening since the invention of the backstaff or the first time someone sat down to draw out a rudimentary chart. What is unique to the present moment is the pace of this change. Affordable technology with potential benefits for the average sailor on a reasonable budget is now being developed more rapidly than at any time in the history of sailing.

Alaria is a great example of what this technology can do. On a 34-foot sailboat with a modest electrical system and a limited budget, we had multiple fully redundant electronic navigation devices, the ability to make and receive phone calls from harbors around the globe,





and the ability to receive weather reports and keep in touch with family while hundreds of miles offshore. With this core technology came plenty of interesting bells and whistles. Just 10 years ago this might easily have been \$10,000 worth of tech. Now it can cost less than \$1,000.

Undoubtedly, it's great to have access to this equipment and now is a good time to consider how we might incorporate these new tools into our safety systems and sailing lifestyles. Still, I hope we're not entering an era in which a cruise to some remote place is no longer accepted as an excuse to change your voicemail, set up an auto-reply on

your email account, and step away from the modern world for a time. Just to be sure, I'll be keeping my boat relatively low-tech and my paper charts handy.

Paul Calder has lived on sailboats much of his life and is finally learning how to sail properly. After a 10-year recovery on terra firma from a childhood spent cruising the Caribbean, he just completed a shakedown cruise on his own good old boat, a newly refitted Cape Dory 28. Paul blogs about that refit and other sailing topics at www. sailfeed.com/writers/paul-calder.

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# Introducing ... SUPERIOR RUN

### A suspense novel written for sailors bu sailor/author, Tom Wells.

Paul Findlay is living his dream, sailing the Great Lakes aboard his beloved sailboat and writing about his voyages to pay the bills. When Paul receives a cryptic call for help from his old college roommate, Rich Perry, the dream quickly turns into a nightmare. A deadly game of cat-and mouse across the greatest of the Great Lakes begins . . . and the cat has all the modern advantages.

#### About the Author

Author Tom Wells is an engineer, a longtime sailor, and a Contributing Editor and boat reviewer for *Good Old Boat* magazine.

He has a sequel in the works, featuring Paul Findlay and his sailboat in another nautical setting.

#### What readers are saying

This book is addicting. It practically reads itself ... [Superior Run] could be the offspring of Tom Clancy meeting Sandra Brown on a Great Lakes cruise ... Tom Wells' knowledge and passion of sailing and the Great Lakes makes this a richer read, enough to whet your interest in one of the most beautiful spots on Earth. I will be awaiting the sequel(s).

- Dave, NY

An imaginative plot and excellent narrative pull the reader in. — *John, RI* 

Superior Run is a true sailor's novel.

— Karen. OR

Available through: Amazon, Kindle Reader, Barnes & Noble. and Tower Books.

## Every sailboat is a good old boat

- 1. *Luna Moth*, a 1970 Redwing 30, takes owner Joe Roetter on a stiff beat to weather near Buffalo, New York.
- 2. Tres Joli, a Beneteau 38, lives up to her name. Ron Stefanski says that while it means "very pretty" in French, he really named this boat after his wife, Kay. (Good move, Ron!) They sail the waters around the Detroit Yacht Club.
- 3. Scott Law's *Wizard*, a C&C 37/40, took first place in her class in a Lake Texoma Sailing Club Lakefest Regatta, but she could have won for good looks too. Photo by Mike Hinton.
- 4. Greg Ross sails *Layla II*, his 1980 Ericson Independence 31, in the waters around Prince Edward Island. He's owned this beautiful lady since 2005.
- 5. Curlew, a Contessa 26, is the recipient of Ben Weeks' labor of love. Ben and his wife sail the Nova Scotia south shore. Decades ago, Ben's grandfather taught him to sail in Finland on a Swedish-built International Folkboat.
- 6. Milady is a 26-foot International Folkboat. Although her roots are in Sweden, she sails on Lake Michigan with caretakers Lynn and Rod Waters. Photo by Bob Cunningham.
- 7. David Platt photographed *Jolie Brise*, a 1960s-era O'Day Tempest, making the best of a lovely breeze.











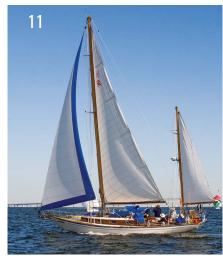




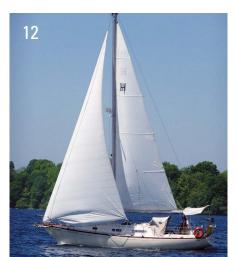














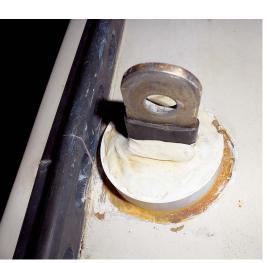
- 8. It was a great Saturday evening sail on Galveston Bay in *Summer Wind*, James Starr reports. She's a 1986 Newport 28 Mk II. Photo by Bob Edwards aboard *Wind Song*.
- 9. Dave Chapman sails *Christy Ann*, his 1979 Pearson 23, hull #51, on Galveston Bay.
- 10. Doesn't this name evoke the lazy, hazy, crazy days of summer? James Williams sails *Dog Days*, his 1981 Islander Bahama 28, on San Francisco's Petaluma River.
- 11. Ben Stavis sent a favorite photo of *Astarte*, the Rhodes Reliant 41 that his father bought new in 1964. These days, Ben is the guy who takes care of *Astarte*'s maintenance and repairs and sails the East Coast with his wife, friends, and family.
- 12. Just the name Summer Wine evokes all the right emotions as we endure the seasonal struggles between winter and spring. Bert Ritcey's 1975 Heritage 35 is impatient to welcome the sailing days of summer. Bert sails the Thousand Islands near Kingston, Ontario.
- 13. Brian McBurney and his sister Christine, shown here appreciating the ride, welcomed the summer of 2013 aboard Brian's O'Day 25, Cassandra. Hold on, gentle readers! It won't be long before we all celebrate the summer of 2014!
- 14. Greg Nyenhuis sent this note: "Serenity Now! I love this picture of peace: a 1983 Morgan NM45. Have a good one!" Indeed we will. This photo can get anyone into the right frame of mind.

Note: When we asked our readers for sailing photos we received some great shots. We'll keep running "baby photos" as long as you keep sending them to karen@goodoldboat.com. More are at www.goodoldboat.com/reader\_services/reader\_photos.php. -Eds.



## Watertight chainplates

A long-term problem cured



loved 1965 Allied Seabreeze 35.
During my stint as owner
(1996 until present), she has had her
share of annoying deck leaks, mostly
minor in nature. I've managed to stem
the ingress of water everywhere except
around the chainplates. After many
years of struggling with this problem,
it was time to come up with a fix once
and for all.

Leaks at chainplates are not only a nuisance, they are dangerously destructive. Many boat sales have been rejected after a competent marine surveyor appraised the chainplates. Salt water entering next to and remaining in contact with the stainless steel can lead to crevice corrosion and eventual failure. This puts the rig and the safety of the crew in jeopardy, to say nothing of water-damaged bulkheads and interior cabinets, along with sodden

bedding, books, and food stores. Except as garnish for a late-afternoon margarita, salt on the rim of the glassware is not welcome!

Secret Water's construction is pretty typical. Chainplates made of stainless-steel flat bar pass through the deck and are bolted below to bulkheads or gussets. Fortunately, Allied Boat Company had the foresight to build with a generous deck flange, so the chainplates, which are well outboard, do not pass through balsa core. I'd tried sealing them with all the usual products with varying degrees of success. But sooner or later I would detect a drip (or worse, a puddle) indicating that, once again, I had lost the battle.

It was time to get creative. Once more, I removed the chainplates from the boat. This allowed me to inspect them properly and really clean up the remains of past sealants that had failed.





The Sunbrella turnbuckle cover hides some of Art's chainplate mod, upper photo on facing page. His technique for thwarting leaks was to wrap the chainplate with heat-shrink tubing and fill a PVC-pipe dam with sealant, lower photo. His chainplates, at right are high — and dry.

#### **Coffer dams**

My newest approach was to place a "perimeter collar" around the deck opening. Cutting a 2-inch PVC pipe coupling in half gave me a collar about ¾ inch high. While keeping the chainplate centered, I epoxied the collar to the deck. This has the obvious advantage of ensuring any standing water is below the sealed joint. It also makes a large cavity to fill with sealant to obtain more contact with the chainplate.

Now for the really innovative part of my approach. I'm convinced past failures can be attributed to the sealant not bonding well to the stainless steel. This time, I encapsulated the chainplate, in the appropriate region, with heavywall heat-shrink tubing. I used the type that's lined with heat-sensitive adhesive - the material the electrical tradespeople use to ensure a weather-tight seal for cables. Using a heat gun (a hair dryer isn't up to this job), I shrank the material onto the chainplate until I could see the adhesive ooze out both ends. No way will water migrate down along the metal.

The trick now was to find a sealant that would bond to the heat-shrink tubing, the PVC, and the gelcoat deck. I experimented with several of the popular marine brands with limited success. Then I discovered the

heat-shrink tubing is made of polyolefin, a plastic that is notoriously resistant to adhesives.

I found the answer in Bond & Fill Flex PVC joint adhesive. This is used in the building trades for installing PVC exterior trim and is available in lumberyards for about \$10 a tube. I filled the dam with the sealant and it cured in about 24 hours. After two years of service, the material has remained as flexible as the day it cured. It claims to be highly resistant to UV and I anticipate a long service life.

The chainplates have remained bone dry. Not a drop has entered the boat. The only downside is the somewhat less than "proper yacht" appearance on deck. But sometimes form follows function. It seems a small price to pay for a dry interior. My talented wife created Sunbrella turnbuckle covers that do an adequate job of concealing the deck collars.

Art and Sandy Hall and their not-soinclined-to-sail Pekingese, Kitri, can be found sailing their Allied Seabreeze 35, Secret Water, on Penobscot Bay, Maine. Occasionally they'll push way Down East for some solitude. A significant enjoyment while cruising is exploring "eel ruts" in their Peapod dinghy that is set up with two rowing stations.



#### Resources

#### **Heat-shrink tubing sources:**

www.mcmaster.com

Local electrical supply company

Bond & Fill Flex sources:

www.bondfill.com Local lumberyard





# TEARING Levity APART

A bow-to-stern hull-to-deck repair

BY MARY BRODERICK





on hailed us from his car as he stopped next to us in the boatyard. "Well, I'm done for the day," he said, "I'm heading home to take my wife to a movie so I don't get accused of spending all my free time working on the boat." With a smile and a wave, he drove off. As we waved back, I tried to recall when my husband, Steve, and I had done anything with our free time besides work on our

project boat, *Levity*. We were spending so much time at the boatyard that our friends began stopping by on our lunch breaks when they wanted to see us. Meanwhile at home, the lawn grew shaggy with weeds and paint peeled from the house.

For the past year, Steve had devoted himself to working full time on *Levity* and I'd arranged to work with him part time. *Levity*'s restoration had become

the center of our lives, and my role gradually shifted from bystander, watching while Steve tackled the major projects, to co-star in the drama. It was an interesting transition for a middle-aged woman accustomed to working in an office in front of a computer. My contributions on the spring and fall weekends I'd spent helping Steve maintain our previous sailboat were light years away from the type



of work involved in resurrecting *Levity*, a Nicholson 35 sloop.

Levity, was built by Camper & Nicholsons in 1973. Designed by the C&N in-house team as an offshore cruising sailboat, the Nic 35 became one of their most popular models. The first was completed in 1971 and 228 vessels had been built by the time production ceased in 1985. Ted Brewer reviewed the Nic 35 in the

September 1999 issue of *Good Old Boat*, and a history of Camper & Nicholsons appeared in the July 2004 issue.

We'd purchased *Levity* with longterm living aboard and cruising in mind. I thought she was perfect for us the first time I saw her, from her spoon bow to her narrow transom and long keel. A throwback to an earlier design era, her hull shape uncompromised by racing rules, she sailed like a dream, and although her interior was small by modern standards, we agreed she was just right for a couple. Levity wasn't fancy, but we were confident she could take us anywhere we wanted to go. She was nearly 30 years old with many miles under her keel when we bought her, and we planned to go through her carefully from stem to stern, repairing or replacing anything that was worn out or not up to the task at hand. Our budget and desire for self-sufficiency dictated that we would do most of the work ourselves, and we drew up a list of repairs and upgrades to be accomplished over the next three to five years.

#### From inside to outside

Steve began by updating *Levity*'s antiquated plumbing and electrical systems. Next, he replaced her worn interior with wood paneling that

he had milled himself and lined her storage compartments with aromatic cedar. Under his direction, I carefully sanded and varnished her lovely teak caprail and scrubbed decades of grime from her deep bilges and chain locker. I compounded and waxed her chalky topsides until my arms ached, and was rewarded when her original ice-blue hull color emerged. When we weren't working on Levity, we lived on her for weeks at a time, exploring the coastal waters, bays, and islands of New England. Getting to know our good old boat was a wonderful experience. Our summer cruises were times of excitement and discovery as we

Levity is a Nicholson 35, a much admired design, far left on facing page. An awning over the deck frame provided shade in summer. The repair entailed the removal of interior paneling and cabinetry, center.





Levity lies at her mooring before the repair to her hull-to-deck joint, at left. Once ashore, Levity became a workshop, at right. The shrinkwrap cover over a custom frame admitted lots of light and allowed Mary and Steve to continue with the repair work throughout the winter months.

learned how responsive she was in light air and how well she took care of us in heavy weather.

#### Warning signs

One day I noticed some books on the shelves near the chart table had somehow gotten wet. Then Steve discovered other signs of water ingress behind Levity's interior cabinetry. We knew Levity had suffered a hullto-deck joint failure nearly a decade earlier. The previous owner had hired a well-known New England boatyard to repair the failed joint and, after a thorough pre-purchase survey, we'd concluded all was well. But as the leaks continued — ruining not only our books but expensive equipment — we became uneasy, then alarmed. After all other possibilities were ruled out, we finally acknowledged with sinking hearts that the earlier joint repair had

failed and we now owned a boat with a very serious problem.

After we dried our tears, Steve and I discussed *Levity*'s problem with other boat owners, surveyors, and builders. On most U.S.-built boats, the hull is bolted to the deck, but *Levity*, a British-built boat, had a bonded hull-to-deck joint that would affect our repair options (see "The Nicholson 35 Hull-to-Deck Joint," page 42). Was the original joint failure a fluke, perhaps the result of a bad batch of resin, or did it point to a basic flaw in her construction?

The builder had provided the previous owner with directions for repairing the failed joint. Were the instructions adequate and had the boatyard followed them properly? There was only one way to find out. It was time to remove *Levity*'s caprail and do some exploratory surgery. There was something profoundly unsettling

about cutting into her deck, but a cancer lurked inside our beautiful boat that had to be cured.

#### A major commitment

Steve's investigation convinced him that the boatyard's repair work had not been extensive enough to correct the failed joint and the botched attempt had created additional problems, allowing moisture to migrate into the deck core over the years. Now we had to decide how to proceed. After much discussion and soul-searching, we agreed Steve would repair the damage himself instead of hiring it out. This decision required a leap of faith on our part as, despite his extensive carpentry skills and knowledge of marine construction, Steve had no practical experience with this type of repair.

Could an amateur correct a problem that had eluded the professionals at





Because of the way the deck was joined to the hull, Steve had to cut into the bulwark, at left. The deck skin also had to be cut out to expose the saturated balsa core. Mary removed the rotten core with hammer and chisel, at right. The white hose is part of the dust collection system.

#### 

a reputable boatyard? We felt as if we were about to dive into the deep end of the pool, but we knew nobody cared as much about *Levity* as we did. We wouldn't cut corners or say "This is good enough" unless it were true. We had one more advantage over a commercial boatyard: we didn't have the pressures of impatient customers, launch schedules, or the bottom line.

Repairing *Levity*'s failed joint was a huge undertaking, but Steve would have some help. Chris, a close friend who was eager to learn more about marine construction, offered to work with him. Together they began cutting out the failed joint material and rotten deck core while experimenting with various repair techniques. Our friend's help was invaluable, but he was planning an extended cruise on his own sailboat so his time was limited. All too soon, he was preparing for departure, and then he was gone, leaving Steve to continue alone.

Up to this point I had merely been an observer but, as I watched the joint repair in progress, I realized how much of the work required a second pair of hands. Clearly it would be very difficult and slow for Steve to do it all himself. Could I be his helper? When I approached Steve with my idea, he was skeptical. I was not used to the type of physical labor involved and barely knew my way around a toolbox. But we worked so well together as a team in other areas of our lives it was worth a try.

Steve explained in detail what was involved and what my role would be at each stage. I didn't have the strength or dexterity to control the larger power tools. Steve would handle these. But we were both surprised to discover that, initially, my hands were not strong enough to manipulate the industrial scissors we'd purchased for cutting fiberglass cloth. We had assumed I would be able to handle this task by myself, and I was flooded with



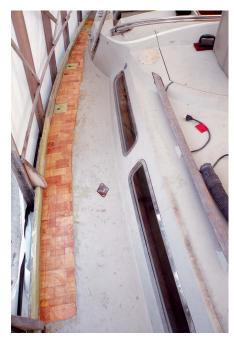




Steve removed the inner bulwark skin and rotten deck core in sections, at top, and rebuilt the bulwark piece by piece out of fiberglass cloth and epoxy resin in specially built molds, center. A section of the new bulwark is ready for installation, above.











Under the winter cover, a new section of bulwark and deck core are in place and ready for finishing, at left. The bow section has been re-cored and faired and is ready for primer, center. The first area where the repair was completed was at the bow, at right.

doubt. Could I really help with this project in any meaningful way?

#### Setting up, suiting up

My first day on the job began with multiple trips up and down the ladder to set up our equipment — power tools, vacuums, and dust collector — and running electrical cords to outlets located across the boatyard. Then we disappeared into our protective gear: Tyvek suits with hoods, work gloves, ear protectors, and full-face respirators with changeable cartridges. The baggy moonsuit was uncomfortably hot, and as soon as I fitted my respirator and

tightened the straps, my nose began to itch. As hard as I tried, I couldn't ignore it. To relieve it, I had to remove and refit the respirator several times, while Steve waited patiently. Then the real work began.

The failed material first had to be cut out from the bulwarks, while (ideally) preserving the outer fiberglass skin along the entire length of the boat. Then the joint had to be completely cleaned to a depth of 4 to 6 inches below the tops of the bulwarks. The failed material also had to be removed from the horizontal flange, or shelf, beneath Levity's deck. Using a large, heavy-duty

right-angle drill, Steve experimented with grinding blades while I handled the dust collection system, vacuum, and drop lights. The dust collector removed the finest dust as it rose into the air. My mission was to capture as much as possible of the debris of all sizes while keeping equipment, cords, and other hazards out of Steve's way.

Working as a team in close proximity on deck under *Levity*'s winter cover and frame posed some challenges. There were frequent collisions as I struggled to control unruly hoses, position the funnel over Steve's immediate work area, and follow the

#### The Nicholson 35 hull-to-deck joint

On most U.S.-built coastal-cruising sailboats, the hull is bolted to the deck. A structural adhesive, such as polyurethane, is used between hull and deck to provide a secondary attachment and ensure the watertightness of the joint. With this type of construction, the bulkheads are glassed to the hull, but are not generally glassed to the undersides of the deck.

On the Nicholson 35, the hull-to-deck joint is a bonded joint, meaning the primary structural attachment is achieved through adhesives rather than bolts. In contrast to the typical coastal cruiser, her bulkheads are fiberglassed to the undersides of

the deck as well as to the hull. This adds strength and rigidity but limits repair options, since it would be difficult to separate the deck from the hull to make repairs in the event of a joint failure.

The bulwarks on the Nicholson 35 are 5½ inches high at the bow, tapering down to 3 inches at the stern. They are formed by the extension of the hull above deck level and a matching vertical flange on the deck itself. A space approximately ¾ inch wide between those two vertical elements is filled with adhesive material. The type of adhesive used in *Levity*'s original construction was epoxy. Her deck sits on

a flange that runs around the entire inside perimeter of the hull. This joint is also filled with epoxy adhesive.

On *Levity*, the only fittings that actually penetrate both deck and flange are the chainplates. Most of her hardware was held in place by machine screws tapped into aluminum plates embedded in the deck core. This left very long expanses along the perimeter of the hull where the structural integrity of the hull-to-deck joint relied exclusively on the epoxy adhesive. *Levity*'s joint problem was a result of a failure in the epoxy adhesive at the juncture between the hull and the deck.

### I had to remind myself that the mess and chaos were temporary.

grinder with the vacuum to collect the larger particles. We gradually developed a rhythm as I began to anticipate his movements and position the equipment accordingly. The pace of the work was excruciatingly slow and the screech of the grinder overwhelming.

Since normal conversation was impossible, we improvised with hand signals, head shaking, and pantomime. I could tell by his expression when he needed something. But did those bizarre gestures mean he wanted the needle-nosed pliers or a wrench? Was he asking for his drill or for a new blade for the grinder? Day after day, we knelt together on the wasteland of Levity's deck in our teletubby suits, shaking our heads and waving our arms at each other while we worked. Slowly, my confusion diminished as I became familiar with the work and learned which tools were needed for each step of the process.

#### Grueling work

During the grinding phase of the project, we worked in 2-hour shifts then stopped for a break. Although the work was tedious, it required absolute mental focus, and I had never worked so intensely. By the

end of each day, I was beyond worn out and longed for a hot shower and sleep. Every morning, as I got out of bed over the protests of my aching muscles, I wondered how I could possibly keep up with Steve, who seemed to function quite well for hours on end without food or breaks.

My learning curve was steep and included important lessons on safety. High-speed power tools made me nervous, and I often broke into a cold sweat when we worked together inside the confining spaces of the cockpit lockers, braced against the curvature of the hull as we ground the failed adhesive material from the flange. Working up on deck was a relief by comparison, but I learned that I could never let down my guard or allow my mind to wander. Once, during a

moment of distraction, the tip of one of my oversized work gloves caught in the tool Steve was operating, twisting my hand around the rotating tip. In an instant, Steve shut down the machine and freed my hand, but I could see my own fear reflected in his eyes as he removed my shredded glove from the jaws of the tool.

Midway through the grinding phase of the project, poor *Levity* looked like a derelict. Her once-gleaming topsides were chalky and streaked with dirt and her deck, a patchwork of repairs, was as hazardous as a rocky shoreline. It was as if her "before" and "after" photos had been reversed. Inside, much of her interior paneling and cabinetry had been removed to allow access to the flange, and her settees were covered with toolboxes and equipment. Molly,

who ran the boatyard store, told Steve she'd warned off several curious passersby who boarded *Levity*, assuming she was abandoned. Seeing *Levity* in this state was extremely difficult. I had to remind myself that the mess and chaos were temporary. When I looked in the mirror at the end of a typical workday, I didn't look much better. My face was etched







Where possible, Levity's hull-to-deck joint was repaired from beneath. Where he could get to it, Steve removed failed adhesive from the hull flange with a Multimaster tool, at top. After replacing the bulwark and deck core at the stern, Steve applied a sealer coat of epoxy to the new core in preparation for fiberglassing, at left. Much of the paneling Steve had installed, at right, had to come out when the deck repairs began.





with lines from my respirator, my hands roughened, and my legs bruised from collisions with obstacles littering the deck.

Foot by foot we ground out the bulwarks and removed the failed joint material. There were days when everything seemed to go wrong and the work stretched out endlessly ahead.

The boatyard community supported us through some of our darkest hours when we despaired at our slow progress and wondered if *Levity* would ever see the water again.

Friends and strangers stopped by to observe and offer encouragement. Coffee and chocolate chip cookies materialized at just the right times and bolstered our flagging spirits, as did the generous offers of help we received. Our boatyard friends invited us along for daysails. Some even offered us their sailboats for an afternoon, a day, or longer if we wished. We were touched by their kindness. We spent several tranguil days sailing the Hudson River on a borrowed boat, recharging our batteries and remembering why we were putting ourselves through this ordeal.

#### Turning the corner

We persevered, and the tide began to turn in our favor. Unusually mild weather allowed us to continue working in the winter. By early spring, the destructive phase of the project was complete and we were focused on *Levity*'s reconstruction. I was now



on a first-name basis with most of the tools and equipment. My skills and confidence had improved and Steve and I worked comfortably as a team. The physical activity agreed with me. I became stronger and more agile and moved around on *Levity*'s hazardous deck with assurance.

As we progressed into the reconstruction phase, I discovered with surprise that I enjoyed fiberglass work. Well, perhaps enjoy is too strong a word, but after the mind-numbing tedium of grinding, it was refreshing to learn about the different weaves of fiberglass cloth, the various types of epoxy resins, and how we were going to use them to rebuild *Levity*'s bulwarks and deck.

Because cure times depended on temperature and humidity, the work required careful judgment. At first this terrified me but, as I gained experience with the materials, it became a challenge I enjoyed. The hours flew by as we measured and cut fiberglass cloth, combined the epoxy resin with the hardener, and applied the mixture to layers of cloth in the custom forms Steve created for rebuilding each section of the bulwarks.

Fiberglass work has some drawbacks. Epoxy resin, as insidious as honey, defeated most of our efforts to contain it. The sticky liquid dribbled off rollers onto the deck and we couldn't change our latex gloves often enough to keep it off our tools. On windy days,

it blew horizontally off our brushes, landing wherever it pleased. If we didn't wipe it up right away, one of us invariably stepped in it. When a breeze blew a loose strand of hair across my face, I brushed it away with an epoxysoaked glove, spreading the sticky stuff onto my hair and glasses. I spent the next half-hour bent over the sink in the boatyard restroom while Steve removed the resin from my hair with hand cleaner. But despite the messiness, our morale improved steadily as Levity's bulwarks and deck began to re-emerge under our hands.

#### Fresh air at last

Once the winter cover and frame were removed, we found ourselves working together on deck in the fresh air and sunlight, surrounded by a sea of boats. It felt liberating to see the sky again and watch the clouds rolling toward us from across the river as we finished rebuilding the bulwarks

To gain access to the hull-to-deck joint in the V-berth, Steve had to remove the paneling from the hull sides and overhead, far left on facing page. Under Levity's winter cover, Steve covered the cockpit with plywood to create a level workspace, at left. A prominent feature was the dust collection and ventilation system, with hose and exhaust fan mounted on a wood panel in the cover, lower picture. The dust collector is outside the work area on planks and not visible.

and began re-coring sections of the deck. By June, the entire hull-todeck joint repair was finished and the deck was closed in. We were almost speechless with joy. We had succeeded and, for the first time in more than a decade, the hull-to-deck joint was sound. A formidable list of projects still remained to be completed and, of course, I planned to remove all traces of the offending epoxy drips. We would be spending most of our free time at the boatvard for the foreseeable future, but after everything we had been through and learned, the projects that remained held no terrors for us.

I stood on deck late one summer afternoon as we finished putting away our tools for the day. Coiling an electrical cord, I paused to survey our work and felt a surge of pride. Despite our initial doubts, we had accomplished so much together and our love for *Levity* and for each other had emerged stronger for the experience. Behind us lay the shoals and reefs of a project that had once seemed almost insurmountable. Ahead of us, the river and the seas beyond her beckoned.

Mary Broderick has been sailing and messing about in boats for nearly 30 years with her husband, Stephen Perry. Mary and Stephen both hold USCG Masters licenses and are looking forward to launching their Nicholson 35, Levity, this summer and spending as much time as possible on the water.







## What's

To search PSIX data via the
USCG website,go to:
https://cgmix.uscg.mil/psix
Click on "vessel search."

MMFS website:
www.st.nmfs.noaa.gov/
coast-guard-vessel-search/index

e're all curious about the good old boats out there. You've probably learned to recognize some boats by their sail insignias, cove stripes, the shapes of their hulls, and other identifying features like portlights. The next time you're stumped, check to see if there's a state registration number on the bow. If not, the boat is probably documented with the United States Coast Guard (USCG). In that case, just the name and hailing port is all you need to look up a wealth of information about that boat — more than many owners probably realize.

For example, anyone walking our docks can see the name and hailing port of our documented boat, *Del Viento*, Washington, D.C. With just this information and a smartphone, they can access the USCG Port State Information Exchange (PSIX) system and begin a process that will reveal the complete documentation details for our boat.

The USCG website describes the PSIX system as a "weekly snapshot of

Freedom of Information Act (FOIA) data on U.S.-flagged vessels, foreign vessels operating in U.S. waters, and Coast Guard contacts with those vessels." Anyone can access and search PSIX data from either a USGC website or a National Marine Fisheries Service (NMFS) website. The two sites allow different search criteria and display different types of information.

It's generally best to begin a search on the USCG PSIX site. This will provide the vessel identification number (VIN). Entering this number on the NMFS "vessel search" page will reveal that *Del Viento* is a 1978 model built by Fuji Yacht Builders. The listing will also show my name and address, the name of the previous owner, the two previous names of our boat, our call sign, our boat's dimensions and tonnage, and that she's built of fiberglass. It will also display our documentation number and the date it expires.

Used together with the NMFS system, the PSIX system can do more

than identify a particular boat type — or satisfy my curiosity over who owns *Loose Change*, the 82-foot Hatteras in the transient slip. For example, before committing to a particular name for my next cruising boat, I can use the PSIX system to see if any other documented boat has that name.

If I want to reach out to owners of C&C 30s, for example, I can look them up. By searching on the first few hull identification number (HIN) characters common to all C&C 30s — ZCC30 — and using "%" as a wildcard, I found that 109 of them are documented with the USCG. (The HIN is the number stamped or molded into the transom of a boat built after 1972.)

Are you curious about the fate of the beloved documented boat you sold 20 years ago? Well, let's hope someone didn't go and rename it Wet Dream.





When cruising a marina and a boat catches your eye, you can learn a lot about it if it is documented. Numbers on the bow indicate a state registration, at left, and you might not be able to access the database. A documented vessel, at right, can be found by searching federal websites.

## in a boat's name?

#### Naming criteria

When it's time to name your boat, get creative. You can name your documented boat anything you like as long as you heed four rules:

- The entire name, no matter how many words, cannot be more than 33 characters long.
- All the characters in a name must be from the Latin alphabet or be Roman or Arabic numerals.
- A name may not be identical, actually or phonetically, to any word or words used to solicit assistance at sea.
- A name may not contain or be phonetically identical to obscene, indecent, or profane language, or to racial or ethnic epithets.

Any number of boats can have the same name, but every boat will have a unique vessel identification number (VIN) — which is different from the hull number (HIN) assigned by the manufacturer. And even if you change the name (through the USCG) or ownership of your documented vessel, the official documentation number (the VIN) assigned to your vessel will never change.

#### Marking your vessel

The Coast Guard is clear about how documented vessels are to be marked. It wants the name, hailing port, and documentation number clearly visible.

For recreational vessels, the name and hailing port can be anyplace on the outside of the hull, so long as they are clearly visible and clearly legible. The letters and numbers can be applied



using any means or materials but they have to be "durable markings" and at least 4 inches tall. The hailing port in particular must be comprised of two elements: a place (a town or city, for example) and a state, territory, or possession of the United States.

For all documented vessels, the official, assigned VIN must be marked on a clearly visible interior structural part of the hull. The number must be "permanently affixed so that alteration, removal, or replacement would be obvious and cause some scarring or damage to the surrounding hull area." The number must be marked in numerals at least 3 inches high preceded by the abbreviation "NO."  $\Delta$ 

Michael Robertson and his wife, Windy, bought a cruising sailboat in Mexico, sold their Washington, D.C., home, and dropped out of their high-pressure lives in 2011 to voyage with their two daughters, Eleanor (10) and Frances (7). They're currently aboard their Fuji 40, Del Viento, in Mexico's Sea of Cortez. You can catch up with them at www.logofdelviento.blogspot.com.





*Del Viento*, a U.S. documented vessel, upper right, has her official number secured to the interior structure, at right. A similar requirement applies to a Canadian vessel, at left.

#### **Canadian registration**

In Canada, vessel registrations are handled by Transport Canada, a large department of the federal government that seems to manage all aspects of transportation, be it air, water, road, or rail. Its Vessel Registration Query System (VRQS) is like the USCG's PSIX system, a searchable database that returns the same kind of vessel and ownership information. The big difference between the Canadian and U.S. systems is that the VRQS system allows for much more comprehensive searches.

In Canada, unlike the U.S., a boat name has to be unique to be registered. Consequently, in Canada you'll see a huge number of boats with Roman numerals after their names. In the U.S., an owner would use IV to show that this is his or her fourth boat of the same name. But in Canada, it typically means that this was the fourth person to register a boat with that name.

You can search on vessel name, number, and owner or do an "advanced search" using more specific terms: http://wwwapps.tc.gc.ca/Saf-Sec-Sur/4/vrgs-srib/eng/vessel-registrations.

#### **Identifying boats by builder**

A cove stripe design is often unique to a manufacturer and can help you identify the type of boat that has captured your interest. *Good Old Boat* has been collecting photographs of cove stripes for several years. They are posted on our website at: www.goodoldboat.com/resources\_for\_sailors/boat\_identifiers.

If the boat of interest is out there sailing and it's too far away for you to see the cove stripe, it might have a logo or insignia on the sail. This identifier plays a big role in the "What's that sailboat?" game. Download a free PDF file with many of these insignia in a handy look-'em-up format. Go to www. audioseastories.com and click on Free for Sailors.

Another place to see sailboat logos and insignia is in the Good Old Boat Owners' Association pages: www. goodoldboat.com/resources\_for\_sailors/owners\_associations.php.

## Making an electrical





#### An old boat's wiring gets a facelift

BY BERT VERMEER

hen repowering Natasha, our 1978 Islander Bahama 30 (see "Repowering to a Sail Drive," July 2013), I was well aware that, as part of the engine replacement, I would have to take a serious look at the 35-year-old original wiring. As is common for boats of this vintage, the wiring and connections were somewhat suspect. That, coupled with years of this-will-do additions by various owners, had created a rat's nest of wiring that I surveyed with trepidation. Electrical wiring was never my strong suit and the work looked daunting so, before tackling this project, I reviewed Charlie Wing's Boatowner's Illustrated Electrical Handbook for guidance on how to do marine wiring properly.

As is typical on older boats, many of the "circuit breakers" on the original panel were serving double or triple duty to protect a variety of electrical additions. Everything from water pumps to GPS plotters had been added to available circuits over the years. It wasn't going to be a matter of upgrading the current panel as much as designing a completely new one. Blue Sea Systems, West Marine, and other sources sell ready-made panels but I found none that could make maximum use of the limited space I had on the Islander. My only real choice was to design and construct a custom panel.

#### **Circuit separation**

From a design perspective, I wanted to isolate critical electrical functions to limit collateral damage should one circuit or piece of equipment fail. Separating the VHF radio from the GPS plotter from the propane control seemed to be a logical way to go, so

failure in one circuit would not affect others. I also designed the panel to separate functions into groups that reflected cabin and sailing needs.

Although most sensitive electronic components require a specific inline fuse, other circuits simply require a circuit breaker of the appropriate amperage to protect the wiring. I calculated amperage loads for each electrical device (water pump, lights, and so on) and purchased the appropriate number of Blue Sea Systems C-Series single-pole circuit breakers.

By including LED indicator lights on the panel, I would be able to tell with a quick glance what was switched on and what wasn't. I used green LEDs for breakers that should always be on when we're aboard (propane sniffer and cabin lights, for example), amber LEDs for sailing instruments, and red







Every electrical panel has its day, and *Natasha*'s had seen plenty, top left. Bert's replacement bristles with breakers and glistens, top right. The wiring behind the panel was a little mixed, at left, and in need of thinning out, center. Bert chose brass for its rigidity and good looks, at right.

## panel

LEDs that should only be on when actually in use (such as the macerator pump and navigation lights). I also wanted to include a battery monitoring system on the panel and selected the Xantrex LinkLite Battery Monitor. Since the control panel that came with the new Beta diesel had no room for a fuel gauge, the electrical panel seemed a logical place to put that as well.

#### A panel with polish

The next decision to make concerned the material for the panel. I would have preferred ABS plastic for its textured surface and ease of workability, but the material had to be  $\frac{3}{16}$  inch thick or less to allow for the circuit breaker switches. ABS plastic of that thickness is not rigid enough and the entire panel would flex unacceptably. The next choice was metal, and to reflect the cabin décor, I chose polished brass.

I laid out the locations of the gauges, breakers, and indicator lights on a piece of stiff cardboard to ensure the dimensions were appropriate. I then scribed the hole centers onto the brass plate and took the panel to a sheet metal shop. Brass is brittle and, when drilling anything other than very small holes, there's a chance of creating ragged edges. The sheet metal professionals punched the holes, which left a very smooth finish.

Then the polishing began. Starting with 200-grit and working up to 600-grit sandpaper on a random orbital sander, I cleared the industrial finish on the brass of all fine scratches. I finished with a buffing pad with a metal-polishing compound until the brass shone and wiped it down thoroughly with acetone before spraying it with clear lacquer to preserve the polished surface.

#### Resources

**Blue Sea Systems** 

www.bluesea.com

**Xantrex** 

www.xantrex.com

#### **Assembly**

I could then begin assembling the panel. To connect the positive terminals for all the circuit breakers, I used a pre-drilled 1/2-inch 22-gauge copper plumbing strap manufactured by All Around. As the holes on the strap did not perfectly align with positions of the breakers, I simply kinked the strap until they did. I wired the indicator lights to the individual breakers and to a common ground wire. Then I sorted out all the new wiring, crimped it with heatshrink terminals, and attached each end to the correct breaker after a wipe with Dielectric Silicone Compound, a corrosion inhibitor. I printed the boatname label on adhesive mailing-label material and used labels from Blue Sea to identify the function of each breaker.

I modified the compartment that housed all the wiring by enlarging the opening to accommodate the new panel, and painted the interior white to make it easier to see and identify the wires. I installed a small bus bar to connect a few ground wires at the panel, and connected that to a much larger ground bus bar in the battery compartment. This removed a great deal of ground wiring from the panel compartment, where it had simply contributed to the wiring clutter.

Since I am right-handed, I hinged the new panel on the left so that, when the front was swung open, I could do most of the work with my right hand. The panel fasteners allowed a ½-inch gap between the panel and cabinet front to provide ventilation and to prevent the accumulation of moisture in the compartment.

Although this was a considerable amount of work and expense (mostly the cost of 14 circuit breakers and the Xantrex LinkLite), the panel has worked very well. All the electrical circuits are independent and controlled from one location. The wiring diagram I prepared during construction stays with the boat for quick reference. What's more, the new look complements the cabin.







With the hinge on the left, right-handed Bert could work on the back of the panel, at top. The white paint inside the locker makes the wires more visible. An important step in the project was to label the wires, at bottom.

Bert Vermeer and his wife, Carey, live in a sailor's paradise. They have been sailing the coast of British Columbia for more than 30 years. Natasha is their fourth boat (following a Balboa 20, an O'Day 25, and another Islander Bahama 30). Bert tends to rebuild his boats from the keel up. Now, as a retired police officer, he also maintains and repairs boats for a number of non-resident owners.

## Ice magic

## Keep your icebox colder and for longer

BY CLARENCE JONES

he factory-built icebox in my Catalina 28 Mark II is superbly insulated but has some drawbacks. I developed a way to make better ice that maintains the icebox at a lower temperature over a longer period of time and a system that equalizes the temperature from top to bottom.

To accomplish this, I looked at three ways I was wasting stored "cooling energy" and how I could cut down on that waste.

- Issue 1 To get the most cooling from the ice I take aboard at the beginning of a cruise, it should be completely melted just as I finish the cruise. I was returning from two-day trips with unmelted ice.
- Issue 2 The icebox in my boat has a drain hole that routes ice melt into the bilge. I'm sure it's there because cold water sloshing around could damage food in the icebox, but the water draining out was near freezing and, if retained, could help maintain cooler temperatures in the icebox.
- *Issue 3* Cold air settles to the lowest point. My boat's icebox is 26 inches deep and its capacity is 2.9 cubic feet. It has two ventilated shelves. With ice in the bottom of the chest, the temperature varied considerably from top to bottom.

To improve the performance of my icebox I needed to find ways to better manage the ice, keep the melted ice in the box without harming the food, and make the temperature uniform throughout the icebox.

#### Better ice

It is the melting of ice that performs almost all the cooling in an ice chest (see "The Physics of Melting Ice," page 52). The trick is to start the melting process at a very low temperature and then sustain the melting for as long as you need it to keep food cold.

Rubbermaid sells a product called Blue Ice, which is essentially a blue antifreeze solution in a plastic container. It freezes or melts at a lower temperature than water, which speeds the cooling process and maintains a colder temperature. I learned how to make my own reusable low-tem-

perature ice and I, too, color it blue. (I call it low-temp ice because the Blue Ice name has been trademarked.)



For a while now I have made boat ice in 1-gallon plastic jugs. That way, when the ice melts, the still-cold water stays in the icebox but cannot harm the food.

Originally, I used jugs that once held store-bought spring water. But to fit, they had to be on their sides in the icebox and their caps were prone to leaking. I switched to jugs purchased at Walmart that are made of thicker plastic and are less likely to crack as the ice expands and contracts through repeated freeze/melt cycles. Their shape fits the ice chest better. I also fitted O-rings into the caps as additional insurance against leaks.

My formula for low-temp ice is 1 quart of rubbing alcohol and 3 quarts of water. Rubbing alcohol is toxic, so I add blue food coloring to make sure nobody thinks it's water and takes a



Clarence's icebox is well insulated, but he wanted it colder.

drink after it melts. It could be any color, but blue has a glacial look to it.

As you freeze a liquid, you're removing energy in the form of heat from the liquid. I think of it as storing "cooling energy" in the ice. Melting releases that "cooling energy."

I tried higher percentages of alcohol, but the freezing/melting point dropped so low it was impossible to get it completely solid in a home freezer. If it doesn't get completely frozen, the magic cooling phenomenon as it changes from solid to liquid can't happen. Eventually, I found the 3:1 low-temp ice mix the best formula for quick cooling. It freezes and melts at about 0° F.

A second jug of ice will maintain the low temperature after the first jug of low-temp ice has done its job. The second jug can be plain water or another mixture with a smaller ratio of alcohol to water.

I have a small freezer in my garage dedicated to making ice for the boat. The low-temp ice solution takes hours

### The low-temp-ice jug quickly drops the temperature in the icebox.

longer to freeze than regular water because it must get much colder to become solid. The low-temp ice is right at its freezing point and begins to melt shortly after it leaves the freezer.

#### **Cooling tests**

I tested a series of various combinations in a 28-quart Igloo cooler. In my last test, I used what I had learned in previous tests. As a reference point, most refrigerators are set to keep food at about  $37^{\circ}$  to  $40^{\circ}$  F.

When I put a jug of low-temp ice in the Igloo cooler, the air temperature was  $78^{\circ}$  F. As the low-temp ice began to melt and go through that 144 BTU-perpound cooling process, the temperature in the chest dropped from  $78^{\circ}$  to  $40^{\circ}$  F in 30 minutes. Amazing.

At that point, I added a jug of plain water ice to the same chest. After 90 minutes (two hours after the test began), the temperature in the chest had dropped to 31° F. This is below the freezing point for the regular ice, so it had not begun to melt. At the four-hour mark, the temperature was down to 29° F.



The temperature in the test cooler did not get back up to 32° F until eight hours after the experiment started. The regular ice then began a slow melt.

I get the best results on my boat with a jug of low-temp ice and a second gallon jug with a mix containing a pint of alcohol, half the amount in the low-temp-ice jug. I put less blue food coloring in that jug, to distinguish it from the 1:3 formula.

The low-temp-ice jug quickly drops the temperature in the icebox. The diluted low-temp ice begins to melt sooner than regular ice would and is completely melted by the end of the second day. This combination maintains an icebox temperature on my boat that does not rise past the mid-40s for 36 to 48 hours.

#### **Factors that affect cooling**

How quickly an icebox will cool and how long it will stay cool is influenced by several factors:

- The internal volume of the icebox
- · How well it is insulated
- The outside temperature
- How much food it contains



Clarence solved the problem of ice melt in his icebox by making a special cold-melting ice in plastic containers, at left. This also solved the problem of losing "cold energy" when the melted ice drained away. A portable fan housed in a plastic tub circulates the cold air.

- How often the lid is opened
- The melting point of the ice in the chest

It takes some experimenting to juggle all these factors, along with the proper mix of alcohol for the frozen jugs you use, so the last of the ice melts as the cruise ends.

When I told a fellow sailor about my experiments, he said he was going to try using vodka instead of rubbing alcohol for his low-temperature mix. That way, in a pinch, the contents of the jug could be drunk after it melted.

#### Equalizing the temperature

Most boat iceboxes are designed for the ice to be placed in the bottom and the food stored above it on shelves. The lower shelf, nearer the ice, is colder than the upper shelf. Putting the ice on top would seem to be a better idea, since the heavier cold air would descend to keep the food cold, but then you'd have to remove the ice each time you took out food.

A household refrigerator has a fan inside to circulate the cold air and keep temperatures even from top to bottom. I installed a small fan that does the same thing for my boat's icebox. A fan probably adds a little heat to the chest, but it is such a small amount, I don't think it matters.

#### Fan test #1

I experimented with two fans. The first was a 40-mm fan (approximately  $1^3$ /4 inches in diameter) of the type used to cool computer motherboards. It cost \$6 and can run on 5 to 12 volts DC. I ran it off a 9-volt battery, so it didn't run at full speed (inside a computer case, the fan's speed is controlled by changing the supplied voltage).

I mounted the fan on the plastic cap from an aerosol paint can. It fit very nicely. I drilled a hole for the fan intake in the top of the cap, and four holes to mount the fan securely using the screws that came with it. (A piece of scrap wood placed behind the

plastic makes the drilling more precise. Without it, the plastic flexes and the hole can become misaligned.)

I cut two holes in the side of the cap for air intakes. A self-stick Velcro strip on the side of the cap held in place a 9-volt battery with a matching strip attached. A pre-wired battery snap-on harness (\$1 at Radio Shack) connected to the fan allowed the battery to be detached for recharging.

There is an inherent problem with using a battery inside an icebox. When batteries get cold, their voltage drops. The most cold-resistant battery type is lithium, followed by NiMH. If you try this method, run your battery and fan in a refrigerator to test it.

At Amazon.com, I bought a rechargeable 9-volt lithium-ion battery and a charger for \$9. That was a much better deal than using batteries that can't be recharged. Cold temperatures seemed to have little effect on the lithium-ion





After figuring out how to keep his icebox cold, Clarence experimented with fans to equalize the temperature. First was a small fan powered by a rechargeable 9-volt battery, at left, but short battery life led him to plug a slightly larger fan into the boat's 12-volt system, at right.

battery's voltage, but the battery was completely discharged after running the fan for 20 hours.

I assume two batteries wired in parallel would run it twice as long, and for a daysail or a smaller icebox, it would be fine. But because our icebox is more critical to us when we make overnight cruises, I created another

model that uses the boat's 12-volt battery and a slightly larger fan. This provides more airflow.

#### Fan test #2

My second fan was a 60-mm fan (about  $2\frac{1}{2}$  inches in diameter) designed to run on 9 to 13 volts and move up to 11 cubic feet of air per minute. It draws .15 amps

The physics of melting ice

A British Thermal Unit (BTU) is the amount of heat energy required to raise the temperature of one pound of water 1° F. It is equally the amount of heat energy that must be extracted from a pound of water to cool it 1° F.

Ice has only half the heat capacity of water, so as it warms and before it melts, a pound of ice absorbs .5 BTU of heat for every degree its temperature rises. Or you could say it provides .5 BTU of cooling for every degree the temperature of the ice rises.

Ice comes out of your freezer (depending on how cold you've set it) at about 0° F. Pure water ice will not melt until it reaches 32° F.

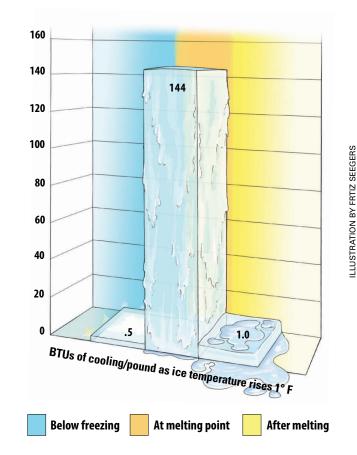
When ice reaches that magic 32° F melting point, an astounding thing happens. As it makes the change from solid ice to liquid water, each pound of ice absorbs 144 BTU

of heat — or provides 144 BTU of cooling.

The massive BTU surge will take place at whatever the melting point.

So, if you can get some of the ice to melt at a lower temperature, you can create a jump start for keeping things cold in an icebox. As the temperature inside the box drops, the melting slows down. And the cold liquid from the melt also helps a little to keep the temperature lower.

Once melted, a pound of cold water provides only 1 BTU of cooling for every degree Fahrenheit that its temperature rises. Although it's twice the cooling power it provided before it melted, it's very little compared to the melt transition. The cold liquid will not help a lot at that rate. When the temperature in the icebox reaches 50° F, some foods will no longer keep safely.



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May/June 2014

at 12 volts. Hundreds of fans are listed at NewEgg.com. The one I used cost \$5, with free shipping.

I mounted this larger fan in a plastic container that once held Campbell's soup. It does a marvelous job of circulating the cold air inside the icebox. Because of its size, it doesn't sit flat on anything, so I didn't have to cut air-intake holes in the sides like I did for the smaller fan.

To power the fan, I used a cigarettelighter plug on a length of 22-gauge wire. I close the icebox lid on the wire and plug it into a 12-volt outlet. The wire is so small, it fits neatly along the piano hinge at the back of the lid and doesn't cause an air leak. Inside the box, the wire is held in place with aluminum-foil tape of the type used in air conditioning ducts.

To conserve cold air when I open the lid to take out food, I can stop the fan by simply unplugging it. I put a connector in the wire close to the fan so the fan can be removed for service or cleaning without changing the routing of the power cord.

If this kind of setup provides more airflow than you want, use a smaller fan or solder a voltage regulator into the circuit to drop the voltage. A tiny electronic module to do this costs about \$3 at Radio Shack. Be aware that, if you go below 9 volts, some fans won't run, or they won't start spinning without a jump-start from your finger.

Since I made these improvements to the icebox, we can taste how much colder our food and beverages are on the boat. I'm sure they're a lot healthier for us too.  $\mathcal{A}$ 

Clarence Jones is a writer, news media consultant, photographer, sailor, tinkerer, and inventor. He and his wife, Ellen, live, work, and keep their Catalina 28 Mk II on Anna Maria Island in the mouth of Tampa Bay, Florida. Clarence has owned sailboats for more than 35 years. For him, part of the joy of sailing is the challenge of creating and building enhancements for his boat, especially when he can do it inexpensively. His book, Sailboat Projects, is available from Amazon.com.

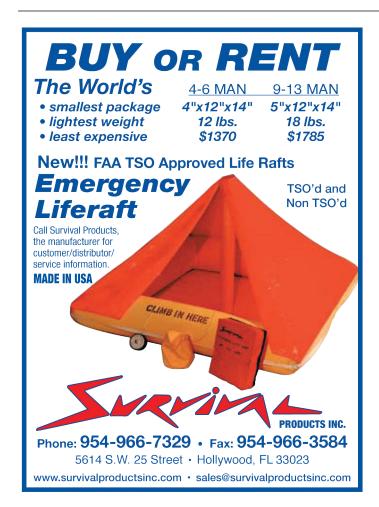
#### Resources

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May/June 2014 Good Old Boat 55 www.audioseastories.com

## Morale boosters

#### Chocolate bars made on board are tasty and economical

BY DENNISON BERWICK

ould there be a sailboat afloat that doesn't have chocolate bars, chocolate chips, or chocolate drink powder crammed into a locker somewhere? Few treats do more to boost a demoralized crew (or skipper), shorten a tedious night watch, or add luxury to a simple dinner than chocolate. That's why chocolate is the world's most popular dessert. Besides, dark chocolate is good for you.

If, like me, you find commercially produced chocolate bars to be limited in variety, hard on the cruising budget, and often much too sweet, there's no

All it takes to make your own chocolate bars is chocolate to melt and whatever ingredients you want to mix in. Chocolate chips can be bought in fairly remote ports and, by mixing in some unsweetened baker's chocolate, you can adjust the sweetness of your custom bars to your own taste. You can also experiment by combining milk, dark, and white chocolate in varying proportions.

The ingredients you can mix in are limited only by your own imagination and what's available. Chopped apricots and local dried fruits (such as mango

Place a shallow trivet in the pan to keep the bowl off the bottom (to stop the bowl from jiggling on the bottom of the saucepan while the water boils) and leave just enough room between the rim of the bowl and the edge of the saucepan for steam to escape. The bowl should be big enough to hold all the chocolate and the mixes and still leave room for stirring.

Bring the water in the saucepan to a steady boil. Don't cover the saucepan — if it's covered, condensation will drip onto the chocolate in the bowl. It's not a problem if a little water splashes





Chocolate itself is a sumptuous reward after a watch on deck, but it can be made even more interesting with the addition of nutritious and tasty treats like dried fruits, nuts, and seeds that keep well without refrigeration. The basic ingredients are baker's chocolate and chocolate chips.

reason not to make your own in the galley. No special equipment is required.

I started experimenting when my bag of treats was almost empty and I was at anchor in Labrador, northern Canada, for a few days waiting out a southeasterly Atlantic blow. First, I melted chocolate chips in a simple double boiler — a bowl inside a saucepan of water — and mixed in two blocks of unsweetened baker's chocolate with almonds and raisins. After I spread out the mix on a baking tray, my custommade "chocolate bars" soon hardened in Labrador's cold climate (there is no fridge aboard *Kuan Yin*).

or banana slices), walnut pieces or other nuts, trail mix, and even breakfast cereals all make excellent additions. Try a little ground chili to *really* spice up your chocolate bars. When you buy what's local, boat-made bars can be a lot cheaper than individually wrapped commercial candies.

#### **Controlled heat**

To melt the chocolate without burning it, you need a double boiler. This is not something many boats carry. As a substitute, fit a glass bowl (or other heatproof bowl) inside a saucepan that has about 1 inch of water in the bottom.

into the bowl from the saucepan, but if you're using seawater it will give the chocolate a new tang.

Chocolate chips melt the easiest. Individual chunks (such as bars of baker's chocolate) need to be broken into smaller pieces. Measure the chocolate into the bowl. Let the chocolate chips melt before adding chunks of unsweetened, dark, or white chocolate. This helps the chunks melt faster.

Once all the chocolate has melted, add your mixes — nuts, dried fruit, or whatever takes your fancy — and stir thoroughly until everything is well coated. Mixing three parts chocolate



to two parts ingredients makes rich nuggets that bind well together and still taste very chocolaty.

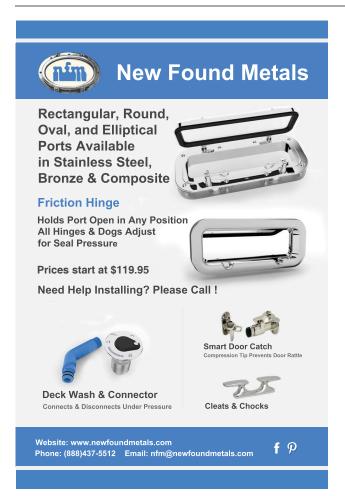
Spread the melted mixture on a greased baking tray or greaseproof paper. If the tray is not well-greased, the chocolate will stick like concrete. If you want to give your chocolate some color, push chopped dried apricots, cranberries, or mango bits into the hot chocolate. Place it in a cool place to harden. This doesn't have to be a fridge; a clean bilge might do the trick. Once it has hardened, break it into pieces and store it in a cool, dark place.

For total luxury, add hot fresh (or canned) cream to the melted chocolate

to make ganache, the foundation of truffles. Add no more than one part cream to three parts chocolate and the mix will still be firm when cooled.

Dennison Berwick is the author of five books, including A Walk Along the Ganges, Amazon, and Savages: The Life & Killing of the Yanomami. Solo sailing his 32-foot Tahitiana, Kuan Yin, he is currently attempting to retrace the 1811 voyage of an Inuit family and two Moravian missionaries north along the coast of Labrador into Ungava Bay in northern Canada. Dennison comments on his travels at www.oceanhermit.com.











## The Alberg 30 turns 50

### Events will celebrate a classic's half century

BY ROLPH TOWNSHEND

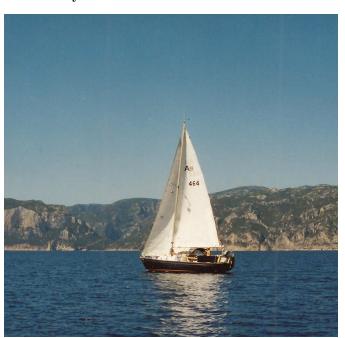
Alberg 30s became popular across the U.S. and Canada and large concentrations formed on Lake Ontario and on Chesapeake Bay, where one-design racing fleets are still very active 50 years later. These two fleets compete with each other every year, in Toronto in June and in Annapolis in September. Boats are loaned to the visiting teams and the racing is intense . . . and fun!

As well as racing, Alberg 30s are well suited to extended cruising in open water. Strongly built, they have endured difficult weather while keeping their crews safe.

Yves Gelinas of Quebec singlehanded his Alberg 30, #399, Jean-du-Sud, eastward around the world in 1981 and has now logged more than 28,000 miles. To lighten the boat for the initial voyage, he removed the inboard engine, but he now uses a small outboard.

In 2007, Kirk Little of Deal, Maryland, began a single-handed voyage around the world in Salsa, Alberg 30 #504,

he Alberg 30 class is celebrating its 50th anniversary this year. In the early 1960s, Whitby Boat Works, Ltd., a Canadian manufacturer, commissioned Carl Alberg to design a 30-foot version of his Pearson Triton with some changes: the rig was altered to masthead and the ballast to cast iron. The first Alberg 30, *Opus I*, was completed in the summer of 1962 and purchased by Gerry Kedey of Toronto. He sailed her lovingly for many years. Production continued until the early '80s and about 700 boats were delivered.





Alberg 30s *Skybird, Windswept,* and *Argo,* top of page, fight for an advantage during a race on Chesapeake Bay in 2010. David and Renee Cooper explored the coast of Spain in *Cookin* in 2002, at left. When Chesapeake Bay Alberg 30s get together, at right, they do so in good numbers.



Skybird and Laughing Gull cross tacks on Chesapeake Bay, top left.
Children often sail on Alberg 30s, says Rolph. Grace Adams (center)
joins Mike Cranston and his son Aron on Laughing Gull, above. Sarah,
Grace, and Emma Adams grin and glow aboard Laughing Gull, below.

In 1999, David and Renee Cooper left Annapolis, Maryland, in *Cookin*, Alberg 30 #464. They sailed to the Bahamas, then across the Atlantic to the Azores, Gibraltar, and on to Pescara, Italy. Soon after leaving the Azores, they encountered very heavy winds and waves for well over a week and finally made landfall in Portugal. They completed their trip in Pireaus, Greece, in 2002 and currently sail the Chesapeake in *Cookin* with their two young children. They were awarded The Cutty Sark Trophy by The Corinthians in 2001.

#### **Anniversary events**

This summer, the U.S. and Canadian fleets are involved in extensive celebrations of their 50-year history. On August 9, the Chesapeake Bay Alberg 30 One-design Association, Inc., will hold a large dress parade of more than 30 Alberg 30s in Annapolis Harbor, followed by a raft-up at City Dock. Visitors will be welcomed aboard to see the boats and meet the owners. On the following day, they'll hold an Old Timers Race in which many of the early Alberg 30 racers will skipper boats in a short race guaranteed to take them down memory lane. The club will also sponsor several commemorative cruises, visiting various ports on the Chesapeake with a 50th-anniversary logo mounted on the bow of each boat.

The Canadian fleet, the Great Lakes Alberg Association, will have special cruises as well, including the Canada Day Rendezvous at the Royal Canadadian Yacht Club, Toronto Islands, June 28 to July 2, and the Eastern Lake Ontario Rendezvous at the Bay of Quinte Yacht Club, Belleville, Ontario, August 2 to 4. A formal dinner party was held at the National Yacht Club in Toronto on April 5.

Rolph Townshend is a longtime Alberg 30 racer and cruiser. He was among the first 10 Alberg 30 owners in Annapolis in 1965.



#### Resources

**Great Lakes Alberg Association:** www.alberg.ca

Chesapeake Bay Alberg Association: www.alberg30.org

Screens for cowl vents

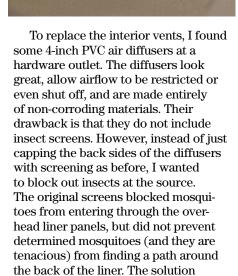
Banish bugs at the point of entry

BY MARK BAKER



ike most sailors, I hold a healthy respect for Mother Nature and accept most of what she has to offer as an interesting challenge. Storms, tides, and headwinds are all part of a sailor's day. There is one exception — the midnight mosquito attack. I'm a light sleeper and, by spending most nights on the hook while cruising, I already sacrifice enough precious hours of sleep to checking our position or responding to boat movements in shifting winds in the night. Mosquito attacks simply have to be minimized.

The recent project of replacing the overhead panels in our C&C 37 provided an opportunity to look inside the Dorade boxes, and I noticed that the cowl vents were essentially scooping mosquitoes out of the air and directing them belowdecks. In the original design, a pair of small screened openings in the overhead liners let air from the Dorades flow into the cabin. The screens were aluminum and had corroded through. What's more, there was also no easy way to reduce airflow on cold damp days. The shortcomings with the existing system got me thinking about more elegant and functional solutions.



#### The design

This project had to meet the usual list of design criteria: corrosion-resistant, aesthetically pleasing, functional, and durable. For aesthetic reasons, I wanted the screen installation to be hidden. To be functional, the screening had to

was to bar them entry at the exterior

openings, the cowl vents themselves.

be installed into the bases of the cowl vents themselves. To ensure durability and corrosion resistance, I chose fiberglass mosquito netting along with PVC and stainless-steel components. The trick would be to come up with a way to anchor the netting to the bases of the cowl vents. The design inspiration came from C&C Yachts.

C&C built a quality line of racer/cruisers from the early 1960s through the mid-1980s and, while the company was respected for numerous innovations, owners who do their own maintenance are often amused by the occasional "re-purposing" of simple components to uses for which they were not intended. Simple screws used for sail slide stops and rubber stoppers used as flexible spacers are a couple of examples. In my case, I needed something that would clamp a pre-formed mosquito-netting cap *inside* the cylindrical base of the cowl vent.

My solution was to re-purpose a stainless-steel hose clamp by turning it inside out so the tightening screw was on the inside. After tightening it so it fit inside the base, I could then loosen the clamp to expand it and secure the screen cap against the inside of the base. I was careful to avoid applying





too much force on the hose clamp screw (as it was not designed to be used in this way) and the completed design worked perfectly. The result was pleasant nights without the company of unwelcome intruders.

#### Step by step

The first step was to form a "cap" of mosquito netting. You could use the outside of your cowl vent, but I used a short length of 4-inch pipe as a form. The smooth surface made it easy to slip the completed cap off the form.

Fit an oversized patch of netting over the end of your form and lightly secure it some length along the form with your hose clamp, leaving enough room for a ring of electrical tape. Make a couple of loose turns around the clamped netting with the electrical tape. Hold down the end of the tape firmly. I found that the tape stuck well to itself, but it did not stick well to the netting (PHOTO 1).

Trim the formed cap with scissors, then loosen and remove the hose clamp. Once the hose clamp was removed, I added a second ring of tape to the base of the cap to hold the screen in place more securely (PHOTO 2).

I found that it was best to leave the cap on the form until all the parts were ready to be inserted into the cowl vent base. This kept the tape in place and the shape of the cap intact.

The next step is to prepare the hose clamp for insertion. Loosen the hose clamp all the way and turn it inside out. Try to reverse the bend in the hose clamp strap to better match the shape of the cowl vent base (PHOTO 3).

Realign the hose clamp ends and pick up the threads while turning the screw with a screwdriver or nut driver. Roughly tighten the hose clamp to match the size of the inside of the cowl vent base. Work the shape of the hose clamp in your hands to make it as round as possible. It's tough to shape the hose clamp under the tightening screw and I didn't find this was necessary. Test the fit and size of the hose clamp to make

sure it's an easy fit inside the base of the cowl vent (PHOTO 4).

Now you're ready to fit the netting cap and the reshaped hose clamp into the cowl vent base. I tightened the hose clamp screw a couple of additional turns to loosen the fit. Gently push the

#### **Tools and materials**

As with any project, it's important to get all your supplies and tools ready before you start.

- Cowl vent funnel
- Cylindrical tube of similar size to the cowl vent base to use as a form
- A small sheet of fiberglass mosquito netting
- Electrical tape
- Stainless-steel hose clamp (to fit the inside of the cowl vent base)
- Scissors
- Screwdriver or 5/16-inch nut driver
- A 5/16-inch open-ended wrench





Boat projects don't pop up in isolation. The black paint on Mark's hands is from the previous day — sanding and painting the bottom of 3Cats.









netting cap off the form. Then quickly insert the hose clamp into the cowl, pushing against the ring of tape. This is a bit tricky, as you have to take care not to force the tape off the netting (PHOTO 5).

Position the hose clamp snugly into the cap, then insert the complete assembly into the base of the cowl vent with the top of the cap facing upward (PHOTO 6). This will allow access with

the wrench from the bottom to expand the hose clamp screw to secure the assembly in place. (Remember, this is the loosening direction.) Be careful not to over-loosen the screw as the hose clamp may spring apart (PHOTO 7).

Trim loose netting from around the base so it won't interfere with the threads (PHOTO 8).

The final step is to reinstall the cowl vents. Goodbye, mosquitoes.  $\triangle$ 

Mark Baker is a semi-retired electrical engineer who was introduced to sailing 35 years ago when he worked in Kingston, Ontario, commissioning and rigging yachts. Mark and his partner, Ann, moor their 30-year-old C&C 37 in Rhode Island, which serves as their coastal cruising base each summer. By completing upgrades each year, they hope to prepare 3Cats to serve as their winter home in three years' time.

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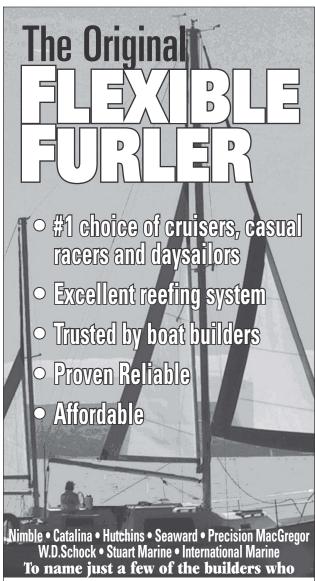
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#### Review boat, Gulf 32, continued from page 13

The Gulf 32 does have a few PHRF ratings countrywide and they range from 264 to 310 seconds per mile. A run-of-the-mill Cal 33 rates 152, a Catalina 320's rating is 156, and a Pearson 32's is 171.

#### Conclusion

On our daysail we didn't experience the higher wind speeds and choppy seas that have established the Gulf 32's reputation for being tough and seakindly. However, I did find the boat very handy under the light-air conditions common to Puget Sound in high summer. The 27-year-old full-battened main and jib seemed to draw well and the boat carried no provisions, stores, or other excess weight. Her bottom was clean — a diver had just scraped a colony of barnacles from the shaft and prop.

The pilothouse didn't obstruct views of crab pot buoys or Mt. Rainier any more than a dodger would. The dodger height on a Catalina 30 is 5 feet 4 inches above the cockpit sole while the Gulf 32's pilothouse measures 4 feet ½ inch from the helmsman's grate to the pilothouse deck. Without a dodger, you'll steer from the pilothouse in bad weather.

The accommodations are well thought out with a lot of usable space. Good use is made of stowage opportunities and access for servicing the engine is exceptional. Deck safety is also well considered. As Capital Yachts said in its brochure, the Gulf 32 "... is not perfect and subject to minor defects," and I did find a certain lack of craftsmanship in some of the finish work. Both inside and out, the boat is a product of its era, reflecting design preferences of the 1980s, when it was built, as well as Bill Garden's own sensibilities that date to when he designed it in the 1960s. For some people, that is a great part of its appeal.

An Internet search returned asking prices ranging from \$36,500 to \$43,900. Information on boats built by Capital Yachts can be found at www.capitalyachts.info.

Richard Smith, a contributing editor with Good Old Boat, is an architect. He specializes in designing and building very small houses and has built, restored, and maintained a wide variety of boats. He and his wife, Beth, sail their Ericson Cruising 31, Kuma, on the reaches of Puget Sound.



With its shippy counter transom, nicely drawn sheer, and handsomely proportioned pilothouse, the Gulf 32 carries its high freeboard well.

## A cover for a dinghy motor

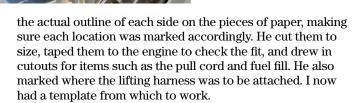
Protection and lifting handles all in one

BY MARCIE CONNELLY-LYNN

hen my husband, David, suggests I do some sewing, it's usually for a project *he'd* really like to have done and one *I'd* rather not tackle. I'm a reluctant seamstress. When, after a sufficient delay, he further suggests that I should show *him* how to sew, it gets my hackles up and I begin the project. So it happened that he wanted a cover for the new outboard we'd just bought for the dinghy and I eventually set about making one.

As the new 4-horsepower Yamaha outboard was exactly the same as the one it replaced, I thought we could use the old cover. It was a loose-fitting affair that tied underneath and worked just fine when the motor was mounted on the stern rail on *Nine of Cups*. This was not, however, the type of cover David wanted this time. He envisioned a cover that fit snugly, had a built-in lifting harness, and could be left on permanently. The cover would protect the motor from UV and the usual bumps and dings it receives during normal use, and it would make lifting and lowering it easier. This was a tall order.

I needed a pattern. As long as the captain was so specific in his request, I figured he should make the pattern. Being an engineer, he's a much better (more precise) patternmaker than I am. He placed rectangular pieces of oversized brown craft paper on four sides of the engine plus the top and drew



#### **Recycled cover**

The old outboard cover was oversized, made from Sunbrella, and still in reasonably good shape. It made sense to reuse that fabric since there was enough of it and nothing would be lost if I messed up. I pinned David's pattern to the fabric and traced it, adding ½ inch extra fabric for a seam allowance on all sides and an additional ½ inch on the bottom edge to allow for a wider hem. So far, so good. When I let it sit for a few days, David offered to set up the sewing machine and I banished him from the boat.

I tackled the cutouts first, finishing them before I sewed the two sides to the top. This allowed me to work on a flat surface when attaching the lifting straps. With a wax pencil, I'd marked the spots on the sides and top where the hoisting straps would go. I salvaged old heavy-duty webbing (previously used to retain jerry cans on deck) as straps and sewed them in place from side to side over the top. For a handle,





Marcie's outboard cover has served well, at top of page. It began with paper patterns taken off the outboard's outer casing, at left. Marcie then pinned the patterns to the Sunbrella components of the previous motor's cover, at right, that provided sufficient material for its replacement.

### The big test came when we fitted the cover over the engine

I sewed a double-wide loop the size of David's hand in the center of the top, overlapping the two hoisting straps, and reinforced the areas around the handle with triple stitching. I sewed buckles on one end of each strap and left sufficient excess at the other ends so the straps could be cinched tight. This would, in theory, hold the cover in place and provide the support needed to accommodate the weight of the engine.

Sewing the end pieces into place was a bit frustrating. The odd, contoured shapes of the engine's back and front made the sewing process a challenge, but with patience (of which I have little) and several trials, I finally completed the fit to the satisfaction of the captain. I hemmed the bottom edges and called it done.

#### A little readjustment

The big test came when we fitted the cover over the engine, buckled it into place, and cinched it tightly. David put a rope through the handholds, lifted the engine up, and lowered it to the dinghy. Oops! Even though the buckles and straps were tight, the fabric could not support the weight of the engine. It bunched up and looked as if it would pull out with very few "lifts and lowers." Back to the drawing board.

We decided that the straps and handles needed more reinforcement. Now that the cover was sewn together and the straps in place, it was more difficult to maneuver. However, without ripping it all apart, I managed to sew additional pieces of webbing onto the underside of the fabric, attaching it firmly to the webbing strips on the top. Had we anticipated this problem, this step would have been much easier to do while the pieces were still flat and before I sewed the handle in place.

Despite the hiccup, the final product with beefed-up reinforcement was acceptable and does the job. I hope it will last as long as the new engine. I hate do-overs.



Marcie Connelly-Lynn and David Lynn have lived aboard their Liberty 458 cutter, Nine of Cups, since 2000 when they sold up and sailed off. They have since put more than 70,000 nautical miles under the keel, visiting more than 30 countries on five continents, and are currently cruising the coast of western Australia. They post a daily blog at www.justalittlefurther.com and maintain a website at www.nineofcups.com. Marcie's new book, Nine of Cups: Caribbean Stories, is available as an ebook at Good Old Boat's downloads site: www.audioseastories.com.





Marcie assembled the top and sides of the cover, at top. The cutout is for the fuel tank fill cap and the wax pencil lines mark where the webbing lifting straps were to be sewn to the sides and top of the cover. She and David tested the fit on the outboard, at left, before she sewed the webbing straps, with buckles already attached, to the top and sides of the cover, above.

### The Reinpin

#### Simple security for sliding doors

BY JIM SHROEGER

dowel

outer door

taper

inner door

knob

here are all kinds of pins. There are hairpins, clothespins, straight pins, and tenpins. But there is only one kind of Reinpin! In the September 2013 issue, I wrote about Ken Reinink's refit of his 1978 Ericson 27, *Reinsnest*, in the course of which Ken — a guy who thinks outside the box — created and incorporated many innovative ideas.

One of these ingenious creations was his "Reinpin," which holds sliding

locker doors securely closed in any kind of seaway. It is simplicity itself in design and foolproof in function.

The Reinpin is made from a 2-inch length of  $\frac{5}{16}$ -inch wooden dowel. The dowel is attached to a standard wooden cabinet pull knob by drilling a shallow  $\frac{5}{16}$ -inch-diameter hole on the back side of the wooden cabinet pull and gluing the dowel into the hole. The other end of the dowel is tapered for half its length.

To use the Reinpin, Ken inserts it through a slightly oversized \( \frac{\psi\_0}{\cdot} \) inch hole in the outer locker door. The hole is positioned so that when the pin is inserted, the tapered end engages the edge of the inner locker door and prevents both doors from sliding. When not in use, the pins are stored in convenient holes located in the locker frame directly above the locker doors. The pins are readily available and unlikely to be lost when kept in these storage holes. The Reinpin concept can be easily adapted to many boats with sliding locker doors like those on *Reinsnest*.

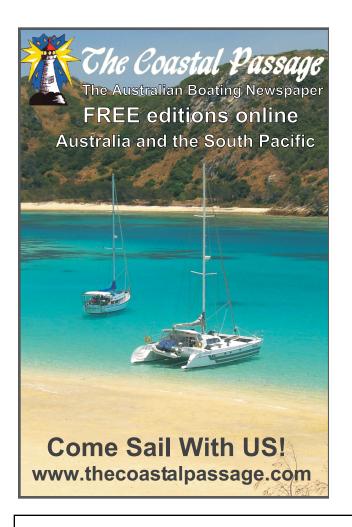
This is one of those ideas that made me slap my forehead and say those oft-repeated words: "Why didn't I think of that?"

Jim Shroeger has been sailing for 50 years. He began in Jet 14s at the University of Michigan and progressed through a series of small to medium-sized daysailers including a Star. In the early 1970s, he and his wife, Barbara, and their two kids began their summer family cruises on the Great Lakes, which they continue to this day in their current boat, Sundew, a Watkins 27.





Inserted in the hole in the outer door, at left, the tapered Reinpin jams against the edge of the inner door and prevents both doors from sliding. When not in use, the pin is stored in a hole above in the frame. The Reinpin hole is visible at the upper left of the opened sliding door, at right.



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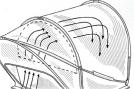
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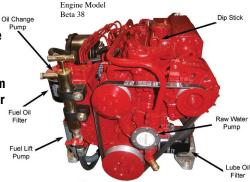
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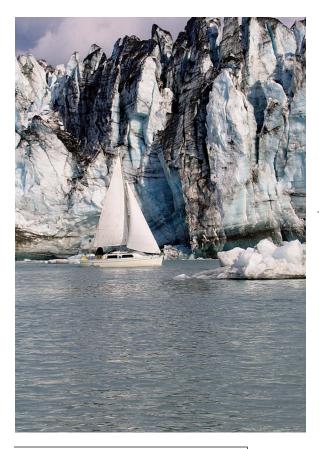
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Good Old Boat 67 www.audioseastories.com May/June 2014

#### **Mail buoy**



In 2005, Dennis Todd sailed his good old 1970 Aquarius 23, *Lacuna*, from Olympia, Washington, to Glacier Bay National Park, Alaska, and back, mostly solo. This photo was taken by Ed Moye as *Lacuna* sailed in the katabatic wind off Lamplugh Glacier in Glacier Bay. Send your high-resolution sailboat photos to jstearns@goodoldboat.com and we'll post them on our website. If we publish yours here, we'll send you a Good Old Boat T-shirt or cap.

#### Mail buoy, continued from page 9

#### **Sea burials**

Regarding your burial at sea article ("Jurgen's Ashes," March 2014), I received a call from the Allegheny County Medical Examiner's Office in Pennsylvania stating they had my aunt and uncle in cardboard boxes. They had raided a home and found the undertaker had not buried hundreds of people and still had their remains.

I said to send them to me and we would take care of it. These were devout Roman Catholics who were to be at Holy Spirit Cemetery in Philadelphia. Well, after 25 years, they needed a home. They arrived in two containers with death certificates, from which I found out my aunt was 25 years older than my uncle. We ended up burying them at sea with kind words from the Bible. People heard about what we did and we have buried two others. One of these had been the captain of the Staten Island Ferry for many years.

-Edward O'Brien, Jr., Clearwater, Fla.

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#### Winter sailing

I know this sounds crazy, but we have a group of Triton owners who sail regularly. We usually climb on one boat and enjoy an afternoon on the water with good friends. Last weekend (February 22-23), we each sailed our own boats over to the Aquatic Park on the north of San Francisco to anchor out. Five boats, dinner, drinks, some good laughs . . . but we retreated to the snugness of the cabin after the sun went down.

-Rob Squire, Walnut Creek, Calif.



#### Snow more blues

Even the roadside snow is tired of winter.

The weatherman moans another grey and frozen week, And then the mailbox;

A plastic-wrapped promise that the river will not forever be frozen over, That spring will come again,

That sails will fill in a warm breeze; boats will surge and carve the water. Thank you, *Good Old Boat*, for bringing a moment of hope stapled into your latest issue.

-Brice Hughes, Burlington, Iowa

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

#### **Boats for Sale**



#### Tartan 34C

1970. Classic Sparkman & Stephens design. Hull #136. Third owner. 3'11" draft with CB up. Perfect for exploring shallow bays. 2-yr-old Moyer Marine FWC Atomic 4 w/16 hrs, professionally maintained. Deck re-cored by previous owner. Just surveyed: exc cond. New cushions, stove, winches, running rigging, much more. Falmouth (Cape Cod), MA. \$19,900.

John Dow 617-291-1865 stigdow@comcast.net www.yachtworld.com/ boats/1970/Tartan-34-C-2559046/MA/ United-States



#### Catalina Capri 16

1993. Honda 9-hp 4-cycle OB '06 w/ electric start. Trailmaster custom trailer. Mast and sails in excellent cond. Fixed keel. Ready to sail. Selling due to health issues. Pekin, IL. \$4,500.

Dale Mayer 309-253-8042 saildmayer@gmail.com



#### Sumner 8

1980 sailing dinghy. Rare combination of excellent tender and good sailer. Great beginner sailboat. Leeboards in place of centerboard trunk enable easy change of position when tacking. Fore-and-aft enclosed side seats serve as flotation tanks enabling USCG certification as unsinkable lifeboat. Wooden cross seats adjustable for rowing. Complete with sails, anchor, oars, and barely used 2-hp Seagull OB. Westport, CT. \$575.

Robert Gillin 914-723-0319 nillig84@verizon.net



#### Pearson Vanguard 32

1963, hull #7. 8-yr restoration. All systems including new Beta Marine engine w/125 hrs, electronics, breaker panel, cabin, topsides, below waterline, restored to concours condition (as commented by local surveyor). 9 bags of sails, vg to new cond. Winter storage paid. Beverly, MA. \$29,000.

Peter Rollins 978-922-5082 n2013q@comcast.net



#### Tartan 34C

1976. Freshwater boat w/ Yanmar 22-hp diesel, 3'11" draft w/CB, Lewmar ST primary and halyard winches new '10. Canvas includes dodger, Bimini, and connector, new '10, and mainsail cover, new '13. Hood FB main with Harken battcars, Harken RF w/150 genoa. Custom cockpit cushions. Wonderful teak interior w/Origo non-pressure alcohol/electric stove, fridge, H/C pressure water. Cheboygan, MI. \$28,500.

Paul Wenner 513-777-2158 wennerpa@gmail.com http://76tartan.wordpress.com



#### Javelin 38

1961 Bill Tripp design. 7-yr-old 35-hp Beta Marine diesel, 6 sails and full spinnaker, 150 genoa. Interior needs work. Sleeps 4 to 6 comfortably. WS, chart plotter, AC/DC panel, marine radio. Beautiful cruiser. Large sail area and full hull. Fast and comfortable. Waukegan IL. \$10,500.

Todd Trowbridge 502-657-9498 toddtrowbridge10@gmail.com



#### Allied Seawind 30

1969 ketch. Seakindly, forgiving, safe, and able to stand up to about anything it encounters. Good cond. Extensive sail inventory, some new, all in good cond. Most systems have been replaced within the last 7 years. 21-hp Westerbeke diesel w/about 2,000 hrs runs well. 4 anchors, dinghy, fridge, new tanks, and much more. Bowmanville, Ontario. \$18,000 CDM

Harry Friebe 905-697-3205 hfriebe@gmail.com



#### Capehart 47

1969 classic motorsailer. Single Ford Lehman diesel in great running cond. Sound hull (layered wood/fiberglass), beautiful teak interior. Got boat in divorce. Must sell as is. Restoration required. Serious interest only please. On a mooring in San Diego, CA. \$12,000 OBO.

Cheryl Bain Cheryll666@gmail.com



#### Mystic River Sloop 18

1978. Good cond. LOA 18', LOD 16', beam 7'. Classic daysailer by Peter Legnos w/registered trailer. Fiberglass hull, wooden mast, gaff, boom, and bowsprit. She draws so little with the CB up that she'll sail in wet grass. Very stable boat. Electric trolling motor w/new battery as auxiliary. Red Creek, NY. \$4,900.

Will and Kathy MacArthur 315-754-8885 rcmac4@gmail.com



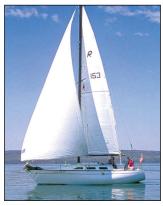
#### C&C 27

1972. New sails '09. Atomic 4 30-hp remanufactured '10. Countless upgrades '11. More details on website. We are proud to offer this fantastic boat for sale. It has been a true joy to own and we will miss her dearly. Growing number of grandchildren gives us an excuse to buy a larger boat (C&C). Bayfield, WI. \$8,900.

Dan Larson 612-810-4457 dan@mariah27.com www.Mariah27.com

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website: www.goodoldboat.com/resources\_for\_sailors/sailing\_classifieds/



Ranger 28

1977. Feature boat Sept '06. A delight to sail. Fully restored. Carefully maintained. New bottom paint. Many upgrades. Enhanced Atomic 4. Dinghy and davits. All sails in excellent cond. On the hard. Atlanta, GA. \$10,500.

Walt Hodge 770-498-1678 walt@wingnwing.com www.wingnwing.com



Pearson 30

1966 Pearson Wanderer. Bill Shaw design. Atomic 4. Exc cond. Well maintained. New bottom paint, clean interior. 5 sails. Standing headroom. A solid, smooth sail. Glen Cove, NY. \$5,000.

> Thomas Vogenberger 516-840-1383 vogcliff22@aol.com



Herreshoff H-28

70

1963. Classic sailing ketch. 30-hp Atomic 4. Exc cond. GPS, Autohelm. 5 sails including cruising spinnaker. Wooden hull. East Lake, OH. \$9,900.

> Warren Burrows 440-488-6294



Morgan 42 Mk II

1973 sloop. Same owner 40 years. Feature boat in April 2012 issue. Meticulously maintained, freshwater boat. Re-engined w/ Westerbeke M38 diesel. Rerigged w/Charleston Spar mast and boom, shrouds, turnbuckles, solid boom vang, and RF. St. Joseph, MI. \$49,500.

Ronald Rueckwald 269-313-2586 ueckwald@aol.com



C&C 27 Mk II

1974 w/twin-axle trailer. Fresh water. Good cond. Rebuilt rudder post, new bottom paint '13. Main, 155 RF genoa, 2 spins plus extra sails. All lines lead to cockpit. GPS, W/S/D. Full list of equipment and photos available. Lake Geneva, WI. Reduced: \$9,999.

> John Lavallee 815-378-5237 jlav0322@charter.net



Bodega 30

1986. San Francisco-built bluewater veteran. Sailed to Alaska and through Panama Canal to Bahamas. Set up for singlehanding but ideal for a couple. Now needs a new captain to follow the dream. Solid full-keel construction with beautiful teak interior. Extensive

sail and equipment inventory. Email for specs and additional photos. Serious inquiries only please. Titusville, FL. \$12,000.

**Sharon Kelly** 321-506-1062, 321-615-1375 sailsundancer@yahoo.com



Marine plywood and epoxy, 1991.

Used very little and stored indoors since 1991. Danny Greene design measures 58"x48"x22" nested and 114"x48"x18" bolted together. Bow section weighs 44 lb, stern section 60 lb, hull 105 lb when assembled with 3 thumb bolts. Rows like a dream and sails well downwind. East Texas, 100 miles north of Beaumont. Reduced: \$1,195.

**Hubert Foster** 409-698-2935 bertandsallvfoster@gmail.com



Alden 53

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**Billy Wheeler** kimbabwhey99@yahoo.com



Cal 24

1984. Fast, fun, stable, solid construction. New main in '10, Harken furler w/135 genoa, spinnaker, and complete set of original sails. Yamaha 8-hp long-shaft in good cond. Indoor storage last 2 seasons. Got a bigger boat, motivated to sell. Castine, ME. \$5,500.

John Mitchell 207-883-6353 jhmitch@maine.rr.com



**Island Packet 27** 

1986. The ideal cruising boat! Quality throughout. Handles well in all kinds of weather. Plenty of room below. Well maintained. Many extras (dinghy, 2-hp OB, dodger, plus all the gear collected over the years). Why am I parting with such a good boat? Because the skipper is too old to go cruising! Ossining, NY. \$31,750

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1978 ultralight. Barient winches, fractional high-aspect rig, running backstays, doublegroove forestay. Mainsail, 3 jibs, 2 symmetrical spinnakers, blooper. New compass, depth. Open transom w/motor mount for (your) OB. Solar panel included, new battery. Minimal interior, sink w/5-gal water tank, nice cushions, Porta Potti. Custom dual-axle trailer included. Will deliver for reasonable cost. Fast and fun boat! New Mexico. \$7,000.

**Keith Cochrane** 505-330-5174 Cochranek@sanjuancollege.edu



#### Falmouth Cutter 22

1980 Lyle Hess design. LOD 22', LOA 30' 6" (includes bowsprit and boomkin). Mentioned in John Vigor's Twenty Small Sailboats to Take You Anywhere. Bluewater features, heavy displacement, full keel, thick hand-laid-up solid fiberglass hull, heavy duty OB rudder, Yanmar diesel, strong bridge deck, cutter rig, long bowsprit and boomkin to handle larger sails. Many have circumnavigated. \$36,250 OBO.

Sidney Bertheaud 504-920-7878 bluedog60@me.com http://sailingtexas.com/201301/ sfalmouth101.html



#### Whitby 45

1969. Great Lakes boat. George Cuthbertson CCA design. Solid racing career including Trans-Superior win; now retired for cruising — swiftly. Several major refits over the years, new main and RF '07, new AC/DC electrics, plumbing, fuel tank and piping. Westerbeke diesel, steel cradle, fitted winter cover. Detailed pdf available w/full description, photos, and survey on request. Madeline Island, WI. \$72,000.

Robert Bruce 218-340-0775 carduus@charter.net

#### Seafarer 31

1971 sloop. Bill Tripp design. Boat about 50% restored but needs more work. Hull solid and deck rebuilt. Steering system has new blocks and cable with Edson wheel installed. Rebuilt Volvo MD2 still pickled from '08. Have hardware, winches, sails, portlights, mast, boom, standing rigging, and more. Niantic, CT. Best offer.

Paul Breglio 860-250-0795 pbreglio@crestmechanical.com



#### Vindo 35

1976 Swedish sloop. Sound fiberglass hull. Beautiful teak decks and cabintop over fiberglass. Newer Yanmar diesel 3GM30 (about 11 yrs) w/210 hrs. Fuel system polished, new Racors ('13). RF jib, Bruce anchor. Engineer maintained. Needs some restoration. Annapolis, MD. \$24,000.

William O'Neil 239-565-2345 thejobo@aol.com



#### Pearson 28-1

1979. Very well maintained.
Foresail cover 1 yr old. Dodger and mainsail cover, 2 yrs old.
Sails in vg cond. Atomic 4 engine in great cond and runs strong.
Harbor View Marina, Newport News. VA. \$9,200.

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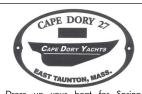


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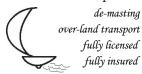


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#### **Product launchings**



Forespar's MareLube now comes in a new preloaded syringe with an extension applicator tube. The MareLube "Reach" Marine Valve Lubrication Kit makes an annual lubrication project one step easier. Instructions that come with the kit include how to use it when a boat is in the water. MareLube Reach works on Marelon, bronze, or stainless-steel valves and comes in a 30cc tube, enough for 20 applications, for \$12.95. For more information and to order, go to: www.forespar.com/products/marelube-reach.shtml.

#### Classy protection for engine panels

In response to countless requests of "Please make one for my engine panel," Seaworthy Goods has created a new style PanelVisor. The MP (multipanel) PanelVisor works on any engine panel up to 8.5 inches wide x 6.5 inches high. A larger size is in development. The PanelVisor is made from StarBoard and UV-resistant Lexan and includes stainless-steel installation hardware. The tough cover provides a clear view of the gauges and lights while protecting them from knocks. It can be left closed, and when open, it can be positioned at any angle.

The optional rear shell defends the panel's wires and gauges against assault from sailbags, life jackets, or other salty items bouncing around in the locker behind the panel. Made from ABS plastic, the shell attaches with the same fasteners as the MP PanelVisor. It was designed to provide plenty of access room for cables.

The MP PanelVisor is \$78 and the optional rear shell is \$22. For information or to order, call 941-448-9173 or cruise over to

www.seaworthygoods.com/panelvisor.html.



#### A smartphone add-on tells you how the wind is blowing

Borel Manufacturing has introduced Wind Sensor, an inexpensive anemometer that plugs into an iPhone, iPad, iPod, or a host of Android devices via the mini-jack for the headphones. The sensor does not require batteries and comes with a hard case for storage.

The free app for the phone is available from iTunes or Google Play. Wind Sensor sells for \$34.95 and is available on the Borel website: www.borelmfg.com.



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## Shoestring cruising

Priceless memories acquired for little outlay

BY BEN ZARTMAN

In all the books I read growing up, cruising sailors generally came across as an un-wealthy bunch. Tristan Jones, whether his tales were embellished or not, stands out as a low-income cruiser. So do Robin Lee Graham and Tanya Aebi who, though at least partially subsidized, did their sailing on boats whose modesty matched their budgets. The Pardeys, of course, wrote the book on shoestring sailing. And barely 10 years ago, my wife, Danielle, and I did a 10-month Caribbean sail, from Florida to Colombia and back, on exactly \$3,200.

So I had no expectation of any better — nor did I really want it — when Danielle and I set out to cruise on *Ganymede*, our budget-built Cape George 31 cutter. If so many notable sailors before us could get by on very little, then we aimed to do so as well, even with three little girls to take care of. The careful husbanding of resources is just another spice in the flavor of cruising life, another factor to consider in all decisions, along with weather, seasons, and piracy or plague reports.

It's hard sometimes. There's no denying it. More often than not we eat on board, even though a cool restaurant ashore would be so much nicer than an already stifling cabin heated up with the stove. To walk or take an overcrowded bus are options A and B before a taxi is considered. To have some fans and batteries to run them would be a comfort during breathless tropical nights when rain keeps all the hatches shut. There are times when to reach into a freezer for a little ice would be sheer luxury.

But if we had waited while we saved up for those things, we might never have gone cruising. And if we did have them, their maintenance would be way out of the budget, again shortening our cruising range. So it's all right with us this way . . . and better in some respects. Without refrigeration, we live like most of the people in the countries we visit, so we adapt to their habits, buying perhaps just enough for that day or finding the local foods that keep. We learn more about the cultures we're among when we have to live like they do — eating the same street food, seeking the same coolness, traveling by bus and moto-cart.

The biggest reward for cruising now on a shoestring, rather than in a somewhat grander style in 10 or 15 years or "someday," is that we are out there right now. Now the children are young, as they'll never be again. Now we can

watch them as they grow — not just on nights after school or work and on weekends but every single day. What they see in every new place, we see together. What they learn from books, we're learning too. When they are all grown up and gone, maybe we'll have cabin fans and freezers and a motor on the dinghy. Maybe we'll make longer ocean passages with less careful concern, but nothing will compare with the delight of sailing as we do now, with our little vibrant, curious, growing clan.

Although we cruise on very modest means, we have discovered what all the other budget cruisers have as well: when you're out there where you want to be, it doesn't matter how little you own. Every rainbow that follows a tropical cloudburst, every sunset, every flock of scarlet parrots against a jungle-covered hill, every splashing waterfall that tumbles to a rocky beach — they all belong to us. Moments so rare and precious they can't be bought with money are abundantly poured out and make us, regardless of monetary means, the richest folk on earth.  $\triangle$ 

Ben Zartman and his wife, Danielle, live with their three young daughters aboard Ganymede, the 31-foot Cape George Cutter he built from a bare hull. After exploring the Canadian Maritimes last summer, they wintered again in Newport, Rhode Island, where Ben found budget-building work. Follow them at www.zartmancruising.com.





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