



Wind Horse In the City of Sails

BY BILL PARLATORE

The Boeing 747 landed in the predawn darkness, after a late evening takeoff from Los Angeles International two days before. With the combination of crossing the international date line, a night landing toward the extreme southern end of the globe, and the fact that it was the first day of winter in June—I was definitely in touch with being somewhere different.

I was in Auckland, the business hub of the North Island of New Zealand. In a country of 4 million people and 40 million sheep, a third of the population lives in the Auckland area. Auckland is known as the City of Sails, and for good reason—boating is *huge* here. America's Cup racing, lavish superyachts, trawler-style motor yachts, and many kinds of multihulls...Auckland has them all. Despite the seasonal chill, boating is alive and well and year round.

I had come to Auckland to see Steve and Linda Dashew's new boat, the "Unsailboat" we first wrote about a couple of years back (see "Dashew's Unsailboat," *PMM* Dec. '03). It is an unusual design that pushes the envelope of powerboat design, and it may indeed prove itself a worthy alternative to traditional full-bodied passagemakers. The Dashews were completing sea trials on the new boat, putting as many miles aboard her as they could before leaving New Zealand on the long South Pacific cruise to California.

New Zealand is located just 200 miles from the Roaring Forties in the Southern Ocean, so boating in New Zealand is a serious affair when heading offshore. More than one New Zealander told me that to undertake a circumnavigation from New Zealand would guarantee that the first and last 200 miles of the trip would be the roughest. Wow.

A PHILOSOPHY TRANSITIONS INTO POWER

The new Dashew passagemaker draws much of its heritage from the high-performance sailboats for which the Dashews are well known. The last of that evolution of sailing yachts was *Beowulf*, a 78-foot ketch in which Linda achieved the family speed record: surfing at 32.7 knots down waves far offshore. In all, they put 40,000 miles on that boat.

To give you some background on this new Dashew powerboat (covered in *PMM*'s earlier article), Steve had three primary design targets for this boat. It had to have exceptional heavy weather capability; it had to be comfortable at sea in heavy weather; and it needed a good turn of speed to make landfall quickly. How it looked and what it was like living at the dock were not particularly relevant to his design concept.

To say that he accomplished his three goals would be an understatement. This new boat, named *Wind Horse*—the translation from the Tibetan prayer flag named Lung Ta, a prayer for enlightenment—is all



about safety and comfort at sea. Steve and Linda are fixated on heavy weather, which is hard to understand in some ways. In the 250,000 miles they have cruised, the couple has only experienced maybe three days of life-threatening weather. But having a boat that can deal with whatever *might* happen—no matter what—provides a mental comfort level that defines their view of happy sailing.

Think about that. Knowing *without reservation* that a boat can take care of itself while still providing comfort and safety in truly abysmal conditions is at the core of the Dashews' philosophy of minimal worry. And it is a belief that has successfully made the transition from sail to power.

Many details of the boat attest to that design approach. Windows are 3/4-inch thick (19mm) and securely bedded. The hull is double bottom. I'll try to cover much of it here, but believe me, this couple has thought of everything.

"Dealing with breaking waves is best handled by putting a pointy end into the seas," Steve told me. "If that can't happen, due to an engine failure, hull design to dissipate the energy from a breaking wave



Top right: Bow details on *Wind Horse* include a strong eyelet for a sea anchor or towline, and massive rollers to handle the 240-pound primary anchor. Below right: Foredeck bow detail and anchoring gear. The massive samson post is solid, and all components were selected for handling enormous loads in storm conditions. This boat doesn't live in a marina. Opposite page top: The bow lifts easily in many sea conditions, and there is little commotion around the boat at speed. Opposite page bottom: A frontal view shows the narrowness of this 83-footer. The hull is designed to increase buoyancy as the yacht is rolled on her side, a safety feature included early in the design spiral.

is critical, and the new boat must be able to slide sideways under such a large, powerful wave.”

All living spaces are close to the pitch center of the boat, and all weight is distributed carefully in the design. Even the angles of the hull sides contribute to create a safe boat with enormous stability. There is much to write about the heavy-weather abilities of this boat, and one can visit the Dashews' website (setsail.com/dashew/dashoff.html) for a complete look at the parameters and metrics the Dashews spent years developing.

WIND HORSE

In flat water just outside Auckland, with the twin four-cylinder Deere 4045TFM diesels at 2000 rpm, the boat averages 11.5 knots with a total fuel burn of 7.8gph. Slow the engines down to 1600 rpm, and the boat loafs along at 9.3 knots, burning 4.28gph. That efficiency comes from a long, slender hull shape.

Slow the engines down to 1400 rpm and the speed is still 8.2 knots, with a fuel consumption of just over 3gph. But why go that slow? “We haven't gone that slow in 25 years,” Steve joked, as he compared this performance to more traditional full-displacement trawler yachts.

Early sea trials convinced the Dashews that 1900 rpm is the sweet spot, at 11 knots. And in the saloon at that speed, I measured 58dBA with my sound meter. I also measured 58dBA in the master stateroom, but that was mostly from water rushing past the hull.

At 9.3 knots, I measured just 55dBA, the quietest recording I have ever measured under way. This has a lot to do with moving the engine room to the aft 18 feet of the boat, separated from the living spaces by a 2-inch thick, Armaflex-insulated bulkhead.



Photos by Bill Paratore



Left: Side decks are wide and well secured, with handholds everywhere. The tread pattern of the aluminum plate used on deck provides an added measure of safety. Right: View aft from the foredeck. Visibility is terrific from this utilitarian flybridge, and clean, uncluttered decks keep the boat simple and low profile.

The boat is all aluminum, and Kelly Archer Boatbuilders specified 5086 and 5083 alloys for the hull, deck, and house. The aluminum construction was completed by Circa Marine & Industrial in Whangarei, north of Auckland. Kelly Archer completed the boat at his yard in Auckland.

The boat has been left unpainted for several reasons. It creates a lower visibility profile for security when traveling in remote areas, giving it almost a low-key working-vessel look. Bare aluminum is also worry free when locals paddle out to hawk their wares.

Another reason for the lack of paint is that a painted hull would cause an owner to fret over the paint job every time the boat comes in contact with pilings. And springing off pilings is standard practice for the Dashews, getting off docks on big boats

without thrusters. Coming in to a dock, the couple's first priority is getting a springline attached to the dock, which puts them in control of the situation. Numerous large winches are strategically placed around the deck to make handling lines much easier for the couple—especially important on an 83-foot yacht.

At the bow is a large ring for use with a sea anchor, or for attaching a tow line if ever the need arises. The massive samson post is solid and is welded to at least three structural members. A foredeck mast allows easy handling for gear, anchor rodes, and lines in and out of the forward locker, which takes up the forward 17 feet of the slender hull.

At the bow are a large Maxwell windlass and a significant anchoring system. The primary anchor on *Wind Horse* is a 240-lb. Rocna anchor, a variation of

a French spade anchor developed by Kiwi Peter Smith. The boat carries four anchors, and it seemed that the 240-lb. anchor is way more than the typical 100-lb. anchor found on a vessel with an 86,000-lb. displacement. I asked Steve how big is big enough.

"When people in the marina start laughing," he said, "You're getting close."

He explained that such a heavy anchor can be set with a short scope, if conditions dictate. And the rest of the ground tackle is strong as well. The chain

water. With 3,600 gal. of fuel aboard in six tanks, partially filling these flybridge ballast tanks keeps the motion within the target roll period of 4 seconds. As fuel burns, the ballast tanks are emptied, adjusting for the change.

On ocean passages, the plan is to keep the boat heavy, so as fuel is consumed, the water tanks are filled to maintain heavy displacement and proper trim. The boat is normally trimmed to be bow down in most conditions and stern down in storm conditions.



Left: The slippery shape of this design allows it to surf quite easily down swell, a welcome surprise to the Dashews, who frequently surfed their large sailboats down sizable ocean swells. Right: This was our view out the forward house window as we searched for a rogue wave during sea trials. Visibility from this location is better than might be expected.

rode is 350 feet of 3/8-inch, System-7 ACCO chain, with a breaking strength of 26,500 lb.

The anchoring system speaks directly to how the couple expects to use this passagemaker. It is set up to allow self-sufficiency. When they leave Auckland, they won't be at a dock (except for fueling) until they reach California. They much prefer to be at anchor.

All hatches on the boat are fitted to raised coamings, each with a pronounced lip for attaching storm covers. And each dorade vent features a way to be shut off completely from inside the boat.

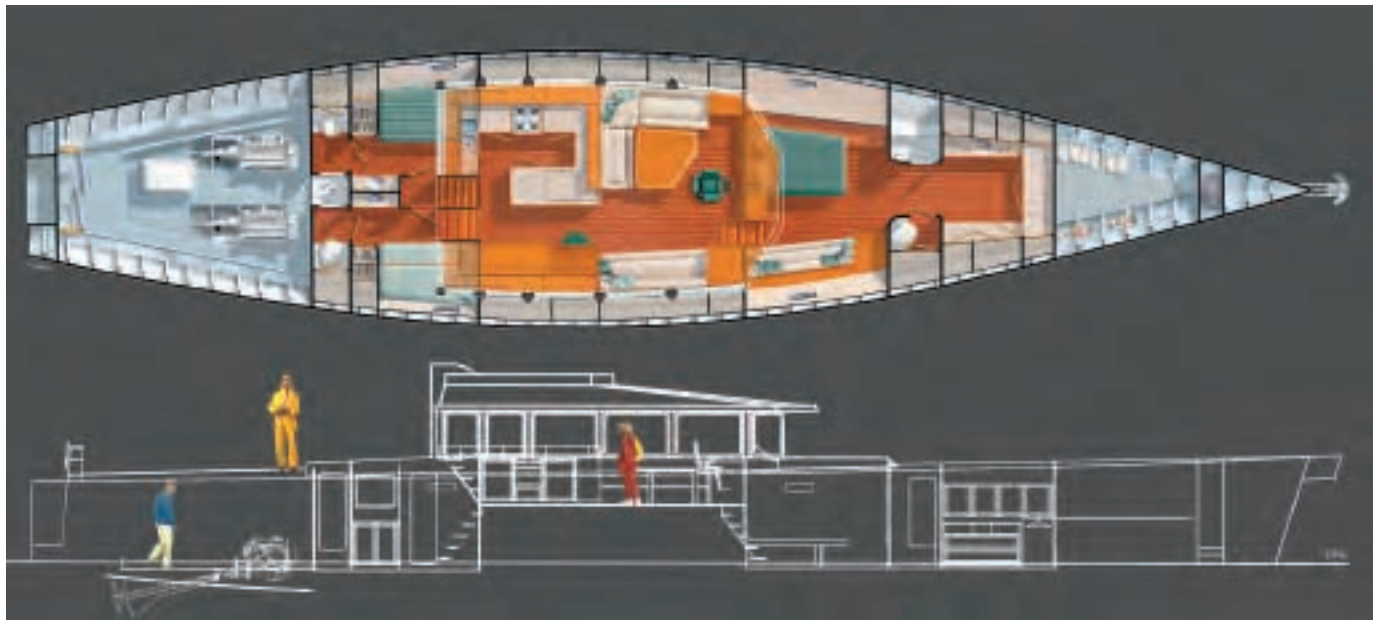
Wind Horse has a small but useful flybridge that allows running the boat in good conditions. There are two tanks integrated in the flybridge structure that can hold 500 gallons of seawater for use when the roll period needs to slow down (in normal conditions), when the boat is heavy with fuel and

"This boat has proven to be far more comfortable than we ever thought," Steve commented. "So these fine-tuning elements are probably superfluous and unnecessary. We are really quite surprised that this boat is so much more comfortable than our sailboats."

INTERIOR GREAT ROOM

My wife and I have always found when living in our homes over the years that we tend to spend most of our time in only one section of the house. It is a "great room" kind of living routine, with cooking, eating, relaxing, and other activities, beyond sleeping, in just one combined area. I jokingly call it our "living module."

That is probably the best way to describe the layout of *Wind Horse*. Her living module is located in



Top: The galley on the port side and the chart table and desk to starboard; this view is looking aft from the helm. The large windows provide outstanding visibility and make this living area bright and very comfortable, without any of the claustrophobic feeling of some cabins. It is a very workable layout. Above: The layout of *Wind Horse* as published in the original *PMM* article. Opposite page: Looking forward in the saloon and helm area. A full dining area is located just forward of the galley, with the helm at the front of this living area. Crew have full visibility from any of these areas, and the relaxed layout competes well against the multi-compartmented accommodations of other traditional passagemakers. Both motion and noise are all but eliminated with such a design.

the center 23 feet of the boat and combines galley, saloon, pilothouse, chart table, and office on one level. Visibility from anywhere in this central area is excellent. Having lunch under way, we relaxed as the boat headed north at 11 knots, and all of us were able to keep watch.

I can't recall another time where a crew (including the on-watch helmsperson) could enjoy a dinner together—in the saloon rather than seated around a cramped pilothouse. Instead of carrying plates, flatware, drinks, napkins, and all the food dishes up a set of steps to the helm area to eat together around the typically small, fixed table behind the helm, crew can spread out around a large dining table in the saloon. Instead of balancing plates on knees on a settee or watch berth, this is real seating at a dining table—a feature that has much to recommend it. And, of course, the best part is that at sea, this central living area doesn't change attitude or have much motion.

As Steve Dashew commented in my first article on his boat, his design has the interior of a 50-foot boat in an 83-foot boat. But I can tell you that it works, and it's the right size for a couple. Even for those who might think overnight passages would be hampered by such an arrangement, it just isn't the case. Low-level lighting allows the crew to multitask at night, whether grabbing a snack or keeping watch.

Just forward of this main living area is the master stateroom, which takes advantage of the vessel's length to create a roomy cabin with lots of storage. It is still close to the center of the boat, quite a distance from the bow, so isn't at all like an inhospitable bow-located stateroom under way. Two small guest cabins are aft of the saloon, so separation from occasional guests is ensured.

The interior appointments include Kelly Archer's fabulous woodwork in Burmese honey teak, with ivory overheads. It is an interior that Linda Dashew describes as a combination of contemporary,





Above: The master stateroom with head forward has enough storage for full-time living aboard on extended passages. It takes full advantage of the length in this area of the boat. Below: The inside helm on *Wind Horse* is complete, and all major systems are redundant. The boat lacks a traditional wheel; Dashew feels the autopilot is a better steering solution.

Southwest, and San Blas Islands, complete with molas from the Cuña Indians.

“Typically, we like to have neutral interiors where we can bring splashes of color [to fit] our mood of the moment,” she explained. Ultrasuede cushions surround the interior.

The helm is complete, but basic. A W-H autopilot system, with a duplicate backup, controls the rudders, which have four times the normal surface area, allowing for superb control of the boat at speed. A small jogstick replaces the traditional helm wheel, as Steve feels it is important to be able to turn the boat quickly when it needs to happen *now*, and that a steering wheel is slower than the autopilot. The capability of the W-H autopilot and the huge rudder area make for an awesome combination, and its combined performance is impressive.





Under the sole of the galley and saloon are cavernous storage spaces above the various tanks. All domestic systems are located around the perimeter of this “basement” area, enabling excellent access for maintenance and repair while still leaving substantial storage.

There are two watertight hatches with dogs above the watertight compartments for the Naiad fin stabilizers. Wood slats along the aluminum structures and frame members and above the tanks assist tie-downs for the large plastic bins used to store provisions, spare parts, and all those supplies necessary for extended cruising in remote corners of the world. There is even a second freezer under the galley sole.

Wind Horse builder Kelly Archer spent time with me on the boat and pointed out that all cavities between and among tanks and frames, and any holes created during construction, are filled with an epoxy slush to eliminate any depressions or areas that can trap water. If any water finds its way into the

compartment, perhaps from a leaking hose, it is simply a matter of heeling the boat and getting the water to collect in an area that can be easily drained or bailed out.

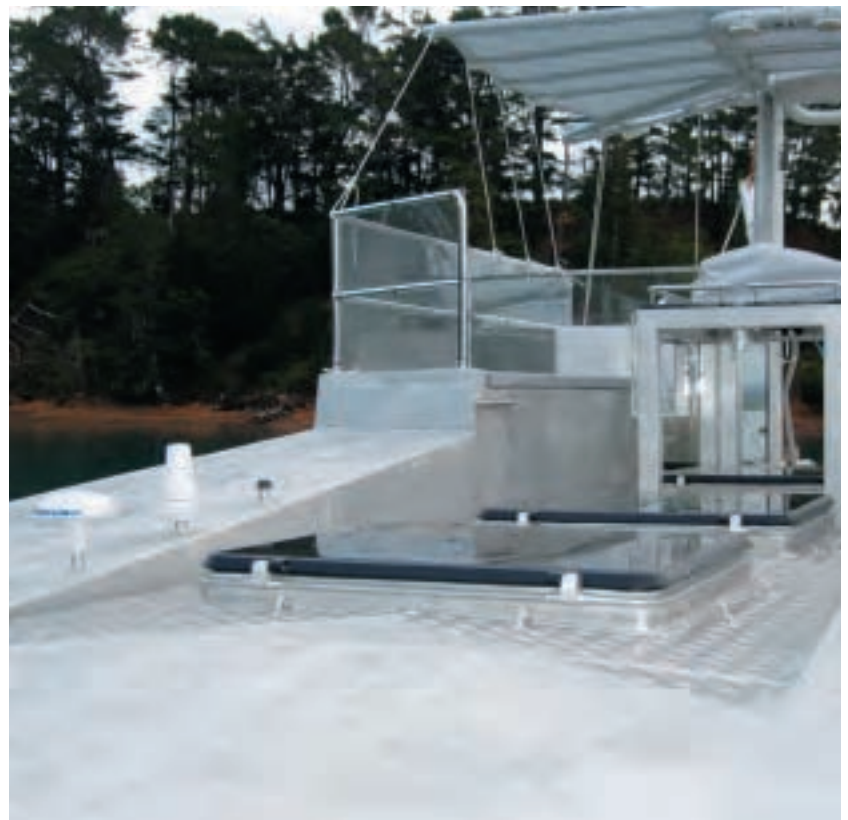
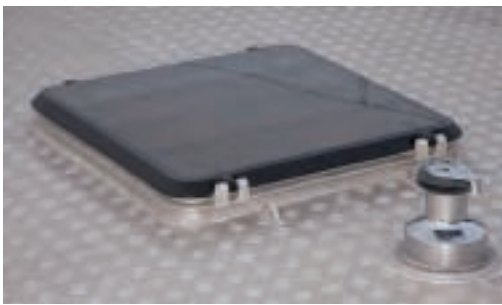
Such attention to detail in the what-you-don't-see construction is precisely why the Dashews are so keen on the work that comes out of Kelly Archer's yard. And it is another reason they are confident of *Wind Horse's* ability for safe and swift passagemaking.

I also spoke with Jeffrey Cobblestone, project coordinator for the boat. Jeffrey took the design and system elements and managed them into reality. He traded schematics and even small details with Steve Dashew throughout the construction, and the scope of this project—involving a lot of systems—meant a constant string of emails throughout each day. Digital images were especially helpful as the two men worked over conflicts and small changes.

As I mentioned, there are six fuel tanks, with two daytanks in the engine room, and two centerline tanks and two reserve tanks forward of the



The galley design is similar to that on *Beowulf*, which proved exceptionally practical at sea. Hinged hardwood cabinets lift for storage of galley equipment, plates, and glassware, and there is enormous additional storage under the sole. This layout gives up nothing for convenience and meal preparation, both at anchor and offshore.



Photos by Bill Parlatore

stabilizers. These reserve tanks are not intended for regular use, as the boat has sufficient range without them to cross an ocean.

There are five accelerometers on the boat that measure and record the boat's movements in head seas, following seas, and beam seas. All the information is collected in a computer for monitoring and future analysis.

There are only two through-hulls in this boat—both 2-inch-diameter seacocks. They are attached to the boat's plumbing in such a way that each can be cleared and/or accessed from inside the boat, above the waterline.

A DESIGN THAT WORKS

After a night on the hook in Bon Accord Harbour, we ran up to Barrier Island to look for some nasty sea conditions. I witnessed first hand how

Top: A view of the front of the house and the removable ladder up to the flybridge. Each of the three panels on the top of eyebrow is hinged and will swing up to relieve wave energy should a large wave run down the foredeck as the boat cuts through a swell. Above left: All deck hatches are mounted on raised coamings and include a lip to attach storm covers in emergencies. Above: The flybridge is a minimal structure but does the job. On each side are water ballast tanks to adjust the boat's roll period.



Above left: Fuel filters in the engine room are easily accessed and well engineered, with high-quality fuel lines and fittings. Kelly Archer's techs know how to do it properly, and the result is an engineering marvel. Above right: A small workbench and several shelves provide a work space for engine room maintenance. Below: The large dimensions of the engine room space allows for proper placement of all ship's systems for outstanding maintenance access. Dashew decorated the space with photos of his previous sailboats, a fitting tribute to this, his first passagemaking powerboat.





Above left: Dinghy handling has been well thought-out, and the couple has no trouble launching or retrieving their custom aluminum tender from the aft deck. Above right: Linda loves to explore aboard the aluminum dinghy. The rail assists getting on and off the boat, and the narrow tender really flies. It is the family car, as the Dashews always prefer an anchorage over a marina.



Details of the boat's stern. Notice the simplicity of boarding at the stern, as well as the high quality of the unpainted metalwork.

well the boat handles up-swell at various speeds. With no serious penalty in speed, the boat just danced over or through the waves, never showing any tendency to stop in her tracks, as so many other boats do. In seas where most traditional trawlers would reduce speed to 6 knots or less, we found absolutely no reason to do so. Even at full throttle and 12-plus knots, the boat didn't seem affected by the up-swell challenge—giving up maybe two-thirds of a knot.

The bow sliced through one particularly large wave, and green water rolled down the foredeck toward the front-facing windows. Imagining a true rogue-wave situation, Steve pointed out three large hinged panels in the extended eyebrow that would be lifted up by any major wave that hits the front of the pilothouse, relieving wave energy and pressure against the front of the house. Again, it probably is overkill, but it's very, very clever.

As the cold, rainy, winter day in June progressed in the ocean north of Auckland, I saw the culmination of Dashew's calculations, the 1,500 hours of systems engineering from

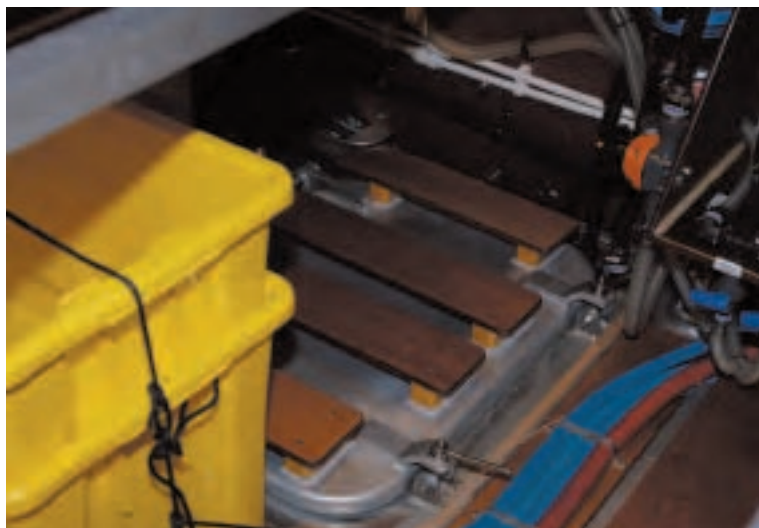


David De Villiers, and the building expertise of Kelly Archer. *Wind Horse* is a long-legged greyhound of a passagemaker. Running down swell, we were also surprised, as she shows a delightful tendency to surf down waves like a racing sailboat, which simply thrilled Steve Dashew.

"I just never suspected it would be possible and fun to surf down swell in this boat," he said with a big smile. He's really looking forward to more of that!

PROVISIONING FOR THE TRIP

A unique aspect of boating in New Zealand is that one must travel 1,200 miles to get to anywhere else. Whether it is Australia to the west, or the nearest island group to the north, Fiji, there is a lot of ocean around New Zealand. The Dashews expect a four-month cruise, first to Fiji, then to Wallis Island, the Cooks, Fanning Island, Hawaii, and California. And it will not be a delivery, but a leisurely cruise on their new passagemaker.



Top: The hull shape is designed to punch through waves rather than ride over them, which would slow the forward motion. It is way more efficient and comfortable for the crew. Above: Detail of the undersole basement includes stacking storage bins, a watertight hatch over a fin stabilizer, and well-secured plumbing and wiring. The epoxy slush that fills the gaps is visible in this image, just to the left of the blue hoses. The wood slats assist in securing tie-downs for storage boxes and other gear.



Photos By Bill Parlatore

Top: Protected from the elements, the living spaces aboard *Wind Horse* are an invitation to live in comfort and safety. Above: At night in a quiet anchorage, the new passagemaker is an impressive home and voyager. She is a design vision turned into reality, and I congratulate all who took part in its creation. Job well done.

In preparation for the adventure, I followed Linda to a local market and thought it would be fun to note the extent of her provisioning. Linda is experienced from years of cruising. She knows how often they go through a tube of toothpaste, and what is easily replenished in the islands. She knows it all.

Her Auckland shopping list included:


- 18 jars of peanut butter
- 16 bottles of Paul Newman's Classic salad dressing
- 40 cans of chopped tomatoes
- 10 bottles of maple syrup
- 10 tubs of honey
- 6 boxes of Splenda (for coffee)
- 40 rolls of paper towels (mainly for use in the engine room)
- 6 liters of aloe vera body wash
- 50 cans of pinto and chili beans
- 24 cartons of organic chicken broth
- 50 liters each of soy milk and goat milk
- 4 cases of Just Juice in various flavors
- 20 lb. of coffee in various flavors and decaf
- 24 loaves of New Zealand multigrain bread
- 12 packages of whole wheat pasta
- 4 lb. of brown rice (easily restocked along the way)
- Bulk cheese (which can be frozen)
- Frozen fruit
- Nuts, crackers
- 12 jars of olives
- 12 cans of artichoke hearts
- 24 jars of pitted olives
- Laundry detergent, dishwashing soap, sponges, cleaners, aluminum foil, plastic wrap, waxed paper, shaving cream, razors, body lotion.

All of the above—and much more—will fit in about half the available space in the “basement,” stored in large plastic tubs that

fit together and are then secured so they won't slide around.

By the time you read this, Steve and Linda will be well on their way home to the States, aboard one of the coolest boats I have had the pleasure to spend time on. It is a radical design to some, but its features really expand and address alternatives to traditional boat design. It has inherent stability, but also has fin stabilizers and flopper-stoppers. It is a terrific sea boat, but is also a nice home for living aboard. In many ways it is a return to boat designs of the early part of the last century, with a long and lean hull. But it is also a pinnacle of technology within the caveat of maintaining self-sufficiency.

While this is a custom one-off project, Steve Dashew and Kelly Archer wonder if its success points to a commercial opportunity to build more boats along these lines, perhaps slightly smaller in length and without some of Dashew's admittedly “superfluous” features. It is an intriguing possibility, so much so that Kelly is building a boat for himself, similar but also very different. If you are interested in an aluminum passagemaker along these lines, Kelly Archer awaits your call.

Wind Horse is one awesome boat, and I wish Steve and Linda many safe miles aboard her. May their Lung Ta wave gently in the fair winds of paradise. 

Hi, Bill—

The anchor is down in front of the Royal Suva Yacht Club.

94 hours total elapsed time—
11.3 knot average. Nothing exciting to report, except that doing this trip in three days and

22 hours is eight hours faster than we did it in *Beowulf*—and that was a fast passage for this part of the world.

All is well aboard. The “to-do” list is very short. At the top of the page is some time to chill out and enjoy cruising....

Best—

Steve Dashew

