SPECIAL EDITION: PASSAGEMAKING THE WORLD WITH NORDHAVN

2003

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Photo of Nordhavn 46 *Knot Yet II* in Phi Phi Islands, Thailand, by its owner, John Keen

Passagemaking for everyone

So many people cross the ocean in sailboats, and sailors are so inclined to write about it, that the world sees sailboats as passage-makers and motorboats as coastwise cruisers. Nothing could be less true. The fact is that a well-designed motor vessel makes a cinch of a passage, and offers no opportunity for heroic postures. I suspect that motor passage-makers arrive casually for lunch and move on to the next port, unnoticed—no baggywrinkle, no tattered canvas, no ragged beards, no stormcloths."

Norris Hoyt
Former Editor of *Yachting*
as quoted in *Voyaging Under Power*

Passagemaking under power is a passion whose time has come. Eilco Kasemier, David Scott Cowper, and Bruce Kessler have made their pioneering circumnavigations. Jim and Susy Sink have shown that not-so-young couples can take a production powerboat around the world and enjoy the adventure greatly. Even those who cast off without much knowledge can quickly gain experience and circumnavigate, as demonstrated by Ghanim Al-Othman.

Now, we see Heidi and Wolfgang Hass starting their second voyage around the world under power. In Thailand, five trawler yachts rendezvous in one harbor, three of them in the midst of circumnavigations. Others are visiting Galapagos, cruising the Med, poking around the Caribbean and other corners of the world. In 2004, when the Nordhavn Atlantic Rally takes place, more trawler yachts will cross the pond in 60 days than have done so in the past 60 years.

Indeed, a new era in boating is upon us, when just about anyone can undertake passages that until recently were considered heroic acts and the exclusive domain of sailboats. Today, ordinary people can enjoy an extraordinary time with their trawlers, as you will see inside **CIRCUMNAVIGATOR**.

How appropriate that Pacific Asian Enterprises should be the company to sponsor this first-ever magazine devoted exclusively to voyaging under power. No one has done more than the folks who build Nordhavns to enable people from all walks of life—many of them couples—to make long passages under power in safety, comfort and style.

Enjoy the magazine! Let us know how you like the features and photos assembled here. Tell us what else you would like to read, as we plan to publish more special editions for and about trawlering.

—The Editors

CIRCUMNAVIGATOR™ is a special edition on passagemaking under power published for Pacific Asian Enterprises by Trawler World Productions, Custom Magazine Division, 3377 Bethel Road S.E. #107, Port Orchard, Washington 98366. Telephone: 866-865-2628, facsimile: 866-865-2729, e-mail: circumnavigator@trawlerworld.com, Web site: www.circumnavigatormagazine.com.

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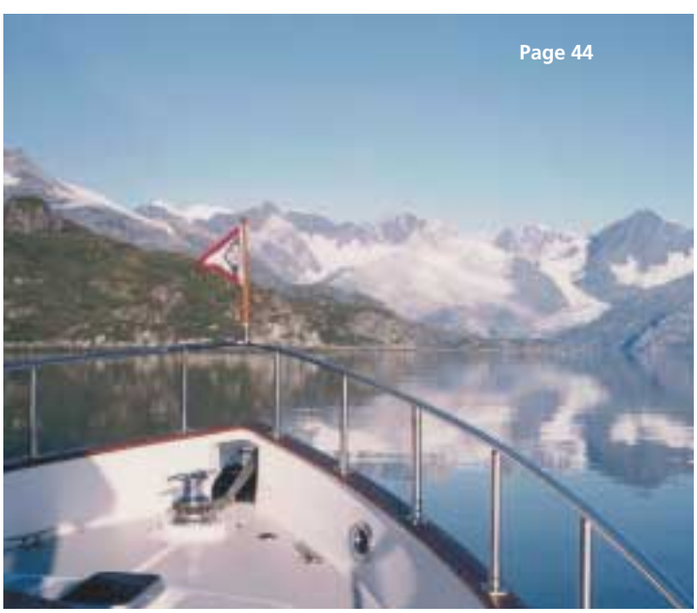
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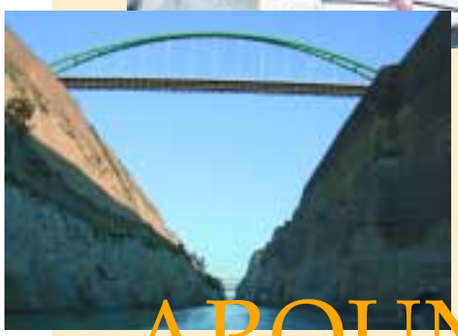

AROUND THE WORLD

Ultimate sea trial

56 In sending a box-stock Nordhavn 40 around the world, Pacific Asian Enterprises rewrote the book on voyaging under power. Appropriately, our 39-page special report on the circumnavigation is a book-length account of the voyage and a primer on passagemaking in powerboats.

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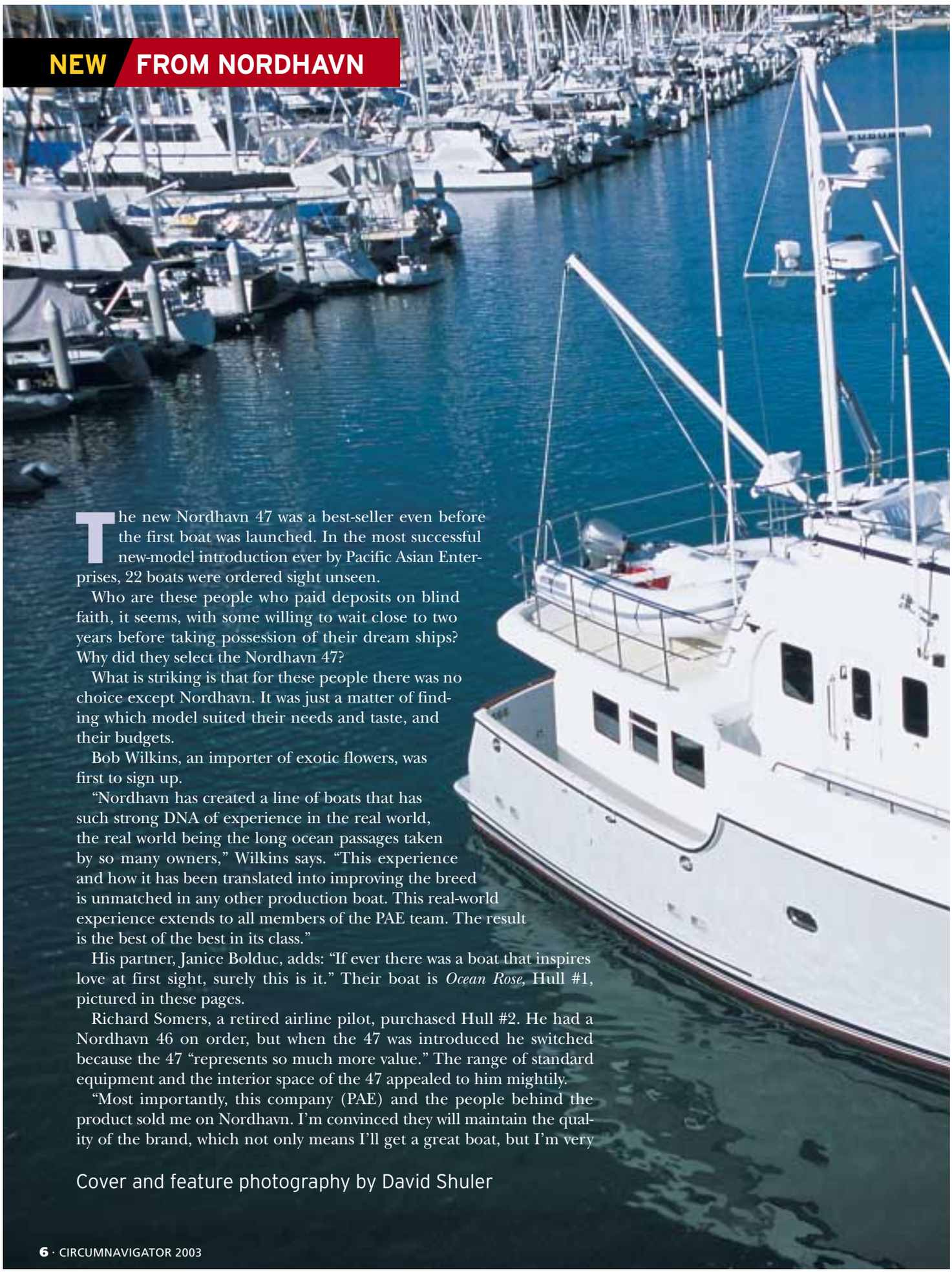
NEW FROM NORDHAVN



The new Nordhavn 47 was a best-seller even before the first boat was launched. In the most successful new-model introduction ever by Pacific Asian Enterprises, 22 boats were ordered sight unseen.

Who are these people who paid deposits on blind faith, it seems, with some willing to wait close to two years before taking possession of their dream ships? Why did they select the Nordhavn 47?

What is striking is that for these people there was no choice except Nordhavn. It was just a matter of finding which model suited their needs and taste, and their budgets.

Bob Wilkins, an importer of exotic flowers, was first to sign up.

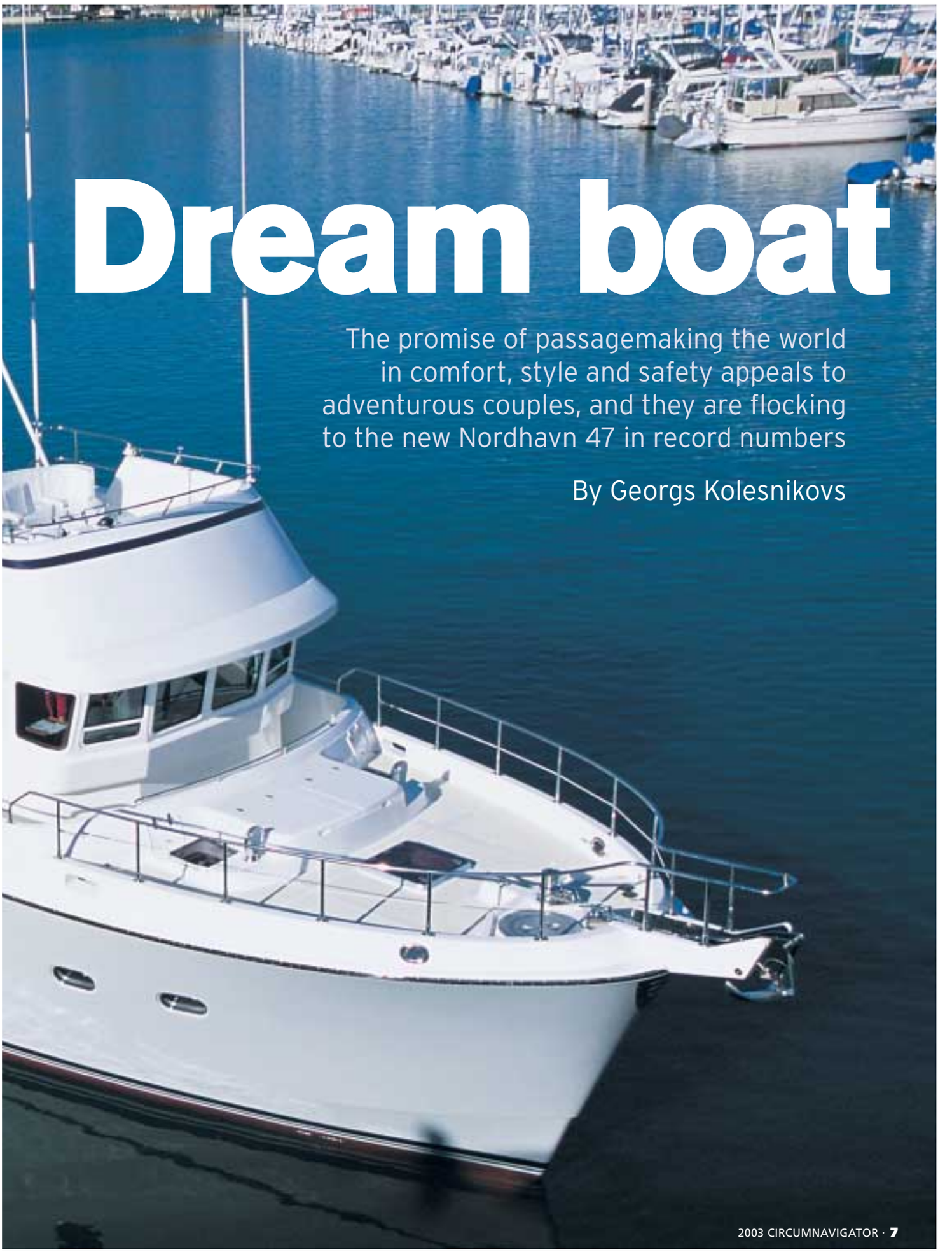
"Nordhavn has created a line of boats that has such strong DNA of experience in the real world, the real world being the long ocean passages taken by so many owners," Wilkins says. "This experience and how it has been translated into improving the breed is unmatched in any other production boat. This real-world experience extends to all members of the PAE team. The result is the best of the best in its class."

His partner, Janice Bolduc, adds: "If ever there was a boat that inspires love at first sight, surely this is it." Their boat is *Ocean Rose*, Hull #1, pictured in these pages.

Richard Somers, a retired airline pilot, purchased Hull #2. He had a Nordhavn 46 on order, but when the 47 was introduced he switched because the 47 "represents so much more value." The range of standard equipment and the interior space of the 47 appealed to him mightily.

"Most importantly, this company (PAE) and the people behind the product sold me on Nordhavn. I'm convinced they will maintain the quality of the brand, which not only means I'll get a great boat, but I'm very

Cover and feature photography by David Shuler



Dream boat

The promise of passagemaking the world in comfort, style and safety appeals to adventurous couples, and they are flocking to the new Nordhavn 47 in record numbers

By Georgs Kolesnikovs

The Nordhavn 47 boasts (from top) a to-die-for pilothouse with space for six adults and a fixed helm chair, the comforts of home in the master stateroom, a spacious saloon, an elegant galley with a full-size range, and a shower big enough for two, as demonstrated by Bob Wilkins and Janice Bolduc, owners of N47 #1, *Ocean Rose*.

likely to be able to recover a substantial part of my investment when I sell the boat years from now."

Robert Healey, another airline pilot, in line for Hull #10, says he bought the key people at PAE as much as the boat: "I like to call them the four horsemen, and I know I'll always have their ongoing support. Dan Streech is a great organizer, Jim Leishman is a strong marketer, Jeff Leishman is an experienced marine architect, and Joe Meglen is the glue that holds it all together." He describes the level of their common passion as amazing.

Initially, Preston Claytor and his wife, Kim, were interested in a 48-footer from another builder. But engine-room access was awkward, visibility from the pilothouse was poor for all but the helmsman, and, "finally, the salesman didn't take me seriously. I'm 42 and Kim will be 40 next year. I guess one needs lots of gray hair before some trawler salesmen will act cordial and treat you as a serious buyer." Needless to say, a PAE salesman did take them seriously and they ordered Hull #14.

Now that the first buyers have had a chance to see the first Nordhavn 47s that have been launched, what is their opinion of the boat?

"She is more than we expected," says Janice Bolduc of *Ocean Rose*. "A sophisticated motor yacht with enough power to run its complex system. The engine room, which, by the way, one can actually stand and walk around in, is all white and operating-room like. That's why I nicknamed her OR. It's the heart of *Ocean Rose*.

"The first thing you notice while under way is her quietness throughout. I mean, I could be standing in the master stateroom right next to the engine room and there's virtually no noise, odor nor vibration. It remains quiet as a church. The raised pilothouse offers excellent visibility and space for visitors. In past Nordhavn demos, I recall some nasty passages where the nose was buried and it looked like a submarine for awhile—and this was only the Chesapeake. However, we were nice and toasty in socks and T-shirts. She held tight and steady. It actually was exhilarating.

"Accommodations are spacious with hidden features like stowage under the staterooms' beds. There are many compartments . . . I even specked one out for the wine. The showers are large enough for two people to stand in. She's quiet, with wonderful performance and generous galley, saloon and staterooms . . . very roomy throughout. A real sea boat. To me, the best choice for bluewater cruisers.

"I think we'll be the envy of the cruising fleet. We're high and dry. We have a beautiful flying bridge with

controls and helm chair and a beautiful half-moon seating area which will have a table, too. The space aft has a very functional, well laid-out deck which holds our dinghy and eventually our kayaks. We will add a few more things like a built-in grill with wet sink and cold storage, and probably another in the cockpit for when we catch the big ones. Just clean and throw them on the grill."

Robert Healey, who is 6-foot-3, says he was not prepared for how big a boat the 47 is. From the size of the pilothouse to the size of the lazarette to the storage space throughout the boat, Healey says he's impressed.

"What amazed us most was the sheer size of the 47," say Alex and Deb Haase, in line for Hull #11, which they'll call *Guilt Trip*. "The vessel certainly seems bigger than the Nordhavn 50 and her displacement proves it out. She will never be as beautiful a yacht as the 50 but will be a working, rugged, ocean-going vessel that we will be proud to own."

The commercial look of the 47, which PAE first used in the 40, is mighty attractive to many of the first owners.

When Preston Claytor and his wife, Kim, saw Hull #1, he says he found the pilothouse most appealing: "PAE designed a great space there, and the ability to have a full-sized helm chair (not available on the 46) coupled with the fact that the 47 has a wrap-around dash make the pilothouse my favorite space. Kim appreciated the quality of the boat, specifically items such as granite in the galley. She also stated that the master stateroom was a big plus. We had to have the fore-aft bunk and wouldn't consider the athwart ships one. Finally, she liked the way the desk turned out on #1. Original plans called for a small settee forward of the smaller desk. When PAE made this change, she was convinced that she should be on their design payroll!

"We were both most amazed by the size difference between the forward stateroom on the 50 versus the 47—clearly the most striking difference between the 47 and 50. We went on *Ocean Rose* and then went on a 50 during our Dana Point visit. What a difference!"

No one disputes, however, that the N50 is a hands-down winner in terms of styling, speed, range, and superior AB ratio. Additionally, PAE will customize the 50 but not the 47.

Ron Montague, in the wholesale lumber business in Colorado, says his wife, Lillian, was sold on the galley, the size and layout of the owner's stateroom, and the spacious pilothouse where they plan to spend a lot of time. The Montagues are in line for Hull #14. He says he has always been impressed with the "down-to-earth nature of the people" at PAE, people who obviously love boats and boating. Seeing Hull #1 and #2 only confirmed they had made the right choice.

What features of the Nordhavn 47 caught the eye of the first buyers?

There isn't anyone who does not mention the size and spaciousness of the 47, with most citing the pilothouse and master stateroom. For Robert Healey, the biggest selling point was the stand-up engine room. Buying into the "cutting edge of design and technology" in power passagemaking also appealed to him.

For Bob Wilkins, one of the attractions was "world-class electrical and fuel systems. A close examination of these two systems (and many others) will surely convince a buyer that Nordhavns have the experience to cruise

the world. These boats are not designs on paper waiting for production, they are here today and have the experience deep inside them to be safe passagemakers."

Alex and Deb Haase plan to cruise the East Coast and the Great Loop before heading across the Atlantic to spend time in the Med. "We realize that no boat can do it all well and we will have considerable challenges doing the Loop and some other shallow waters," Alex says. "However, in our mind, this is one of the few vessels of its size that can do it all, and do the oceans well."

Preston and Deb Claytor almost took a step up to the Nordhavn 50, Preston says, "However, when we took the plans for the 50 and overlaid them on the 47, we saw precious few differences." The 47 provides, firstly, "just as much space in three less feet, which equals lower costs all around. Secondly, we want a boat capable of clearing the bridges on the Loop. PAE would only produce a 50 as a Loop boat with a wet exhaust. Thirdly, the 47 has the 668T Lugger, with 174 horsepower max, whereas the 50 has a 250 or 300-horsepower Lugger; we felt this was overkill on a full-displacement hull. Finally, we weren't in a great hurry. It seems that many people have to have a boat now. We sold our ocean-going sailboat in November 2000, and have survived. Realistically, we won't take delivery of 47-17 until summer 2004 and this date could easily slip further. That is OK with us as I have a full-time job and plenty to do in the meantime."

What made you decide on the 47 as opposed to the 46 or 50?

Bob Wilkins answers: "I had really looked at the 46 and would have bought one, it being my first choice in trawler boats. Forty-seven 01 came to me as a last-minute opportunity and I jumped on it. For many couples the 46 still is one of the best boats in the market for worldwide travels or very secure coastal and Great Loop-type travel. I liked the look of the 47 better than the 50, and the 47 is also less money than the 50. The 50 still has the advantage of a different look or if you want greater speed. The 50 can cruise at 9.5-10 knots where the 47 will make around 8.5. The 50 has a 300-horsepower engine and the 47 has a 174-horsepower engine."

Nothing but the best of everything is the theme that runs through the 47. Nordhavn quality does have a price, but you do get what you pay for, and record numbers of customers are willing and able to do so.

Many buyers order active-fin stabilizers, but Richard Somers took only paravanes, for their reliability and simplicity, "not to mention a year of college for my son." A pair of active fins cost $32,500 while a paravane system costs $12,500. Having a sailing back-

Perfect passagemaker?

The new Nordhavn 47 has the makings of being the ultimate passagemaking machine for a couple wishing to voyage the world in a production powerboat

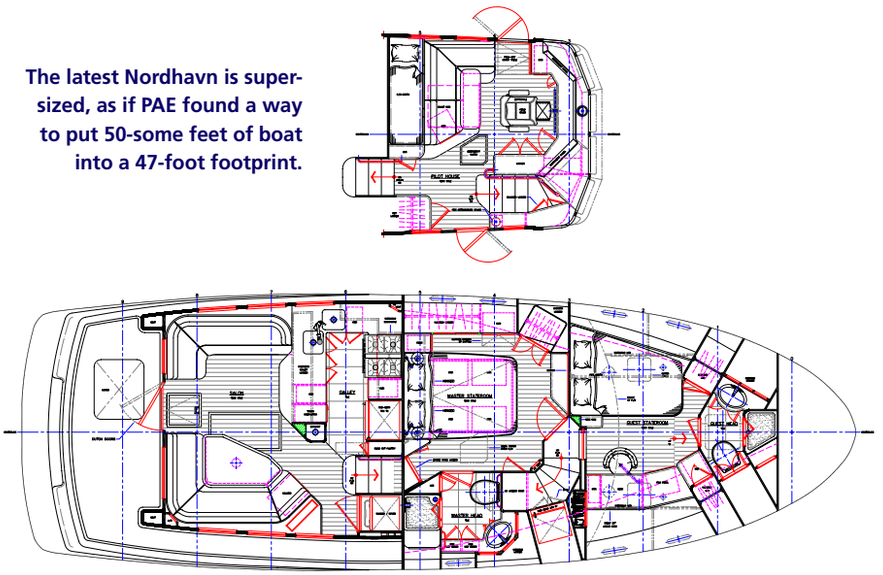
By the Editors

"Big boat!"

That's the first reaction of everyone walking down the dock toward the new Nordhavn 47, with a variation on the theme being: "Wow, that is the biggest 47 I've ever seen!"

The newest Nordhavn is only 47 feet 6 inches on deck, but Pacific Asian Enterprises pulled no punches in designing the boat, incorporating their latest thinking on what makes a perfect passagemaker. With a new factory, PAE is no longer confined by height restrictions, as was the case for its 46 and 50. Thus, the 47 is a full foot taller than the 50, which enabled PAE to raise the decks, expand floor space, increase tankage, and provide

The latest Nordhavn is super-sized, as if PAE found a way to put 50-some feet of boat into a 47-foot footprint.



ground, he says he's not intimidated by handling lines, and likes the bonus of stabilization at anchor which active fins do not provide.

How do the first buyers of the Nordhavn 47 plan to use their dream ships?

Janice Bolduc, first mate of *Ocean Rose*, says, "We are readying the boat to start cruising in 2003. We have all the electronics that we need to go around the world. Our first stop should be Catalina Island, then up to the Pacific Northwest. Probably into Canada and finally to Alaska in the summer. Our future plan is to be part of the Nordhavn Atlantic Rally to the Med in 2004."

Richard and Raiko Somers of *Journey*, Hull #2: In the summer of 2003, head for Glacier Bay in Southeast Alaska, then Mexico, Guatemala, El Salvador and Panama. After a stop at Captiva Island in southwest Florida, where his father lives, up to Rhode Island for the start of the trans-Atlantic rally, and then several years in the Mediterranean before deciding where to cruise next. Says Richard, "A boat for us represents a leisurely way to travel to places we've always wanted to visit, or have been to but on a time schedule. Now we'll be able to stay for prolonged periods of time in places we like."

Ron Montague of Hull #14: The boat should be ready in time for the 2004 rally to the Med, but plans are changing, and Panama, Mexico and Alaska beckon.

Preston Claytor of Hull #17: "I want to do the Great Loop. I would also like to take the boat offshore to the Bahamas and Virgin Islands. It's the third trip which will have some folks thinking I'm nuts." The third trip is as the support vessel on a transit of the Intracoastal Waterway in his 29-foot cabin steamer. Yes, steamer.

Robert and Cathy Healey of *Triton*, Hull #10: They plan to follow the sun from the Florida Keys to Maine.

Alex Haase of *Guilt Trip*, Hull #11: "I have spent 35 years flying over the oceans, both the Atlantic and Pacific, from the southern ice cap to Thule, Greenland, and from India to Japan, the long way around. Those long, dark nights over the oceans allow time for considerable dreams. One of those has always been to cross an ocean on my own bottom at 7 miles per hour rather than 600. Deb and I have always enjoyed travel and the journey is always as important as the destination. Soooo, in three years . . ." C

Space abounds in the lazarette for extra gear and in the walk-in, stand-up engine room for additional machinery. Sight gauges on the day tank (upper right) enable fuel burn to be accurately monitored on long ocean passages.

for an engine room with 6 feet 2 inches of standing headroom. Elsewhere, headroom is 6 feet 6 inches or more.

It's as if everything on the boat—from the engine room to the pilothouse—was super-sized, as if they found a way to put 50-some feet of boat into a 47-foot footprint, all without making the boat seem ill-proportioned. As tall as it is, the 47, with an above/below water ratio of 2.5, still falls within the range that Robert Beebe specified in the original Voyaging Under Power, as a requirement for seaworthiness.

For Jim Leishman, the founding partner who headed development of the boat at PAE, 47 feet is a perfect size. He spent the better part of a

summer in Southeast Alaska on a Nordhavn 40 with his wife and two teen-age sons, and acknowledges more room would have meant greater comfort.

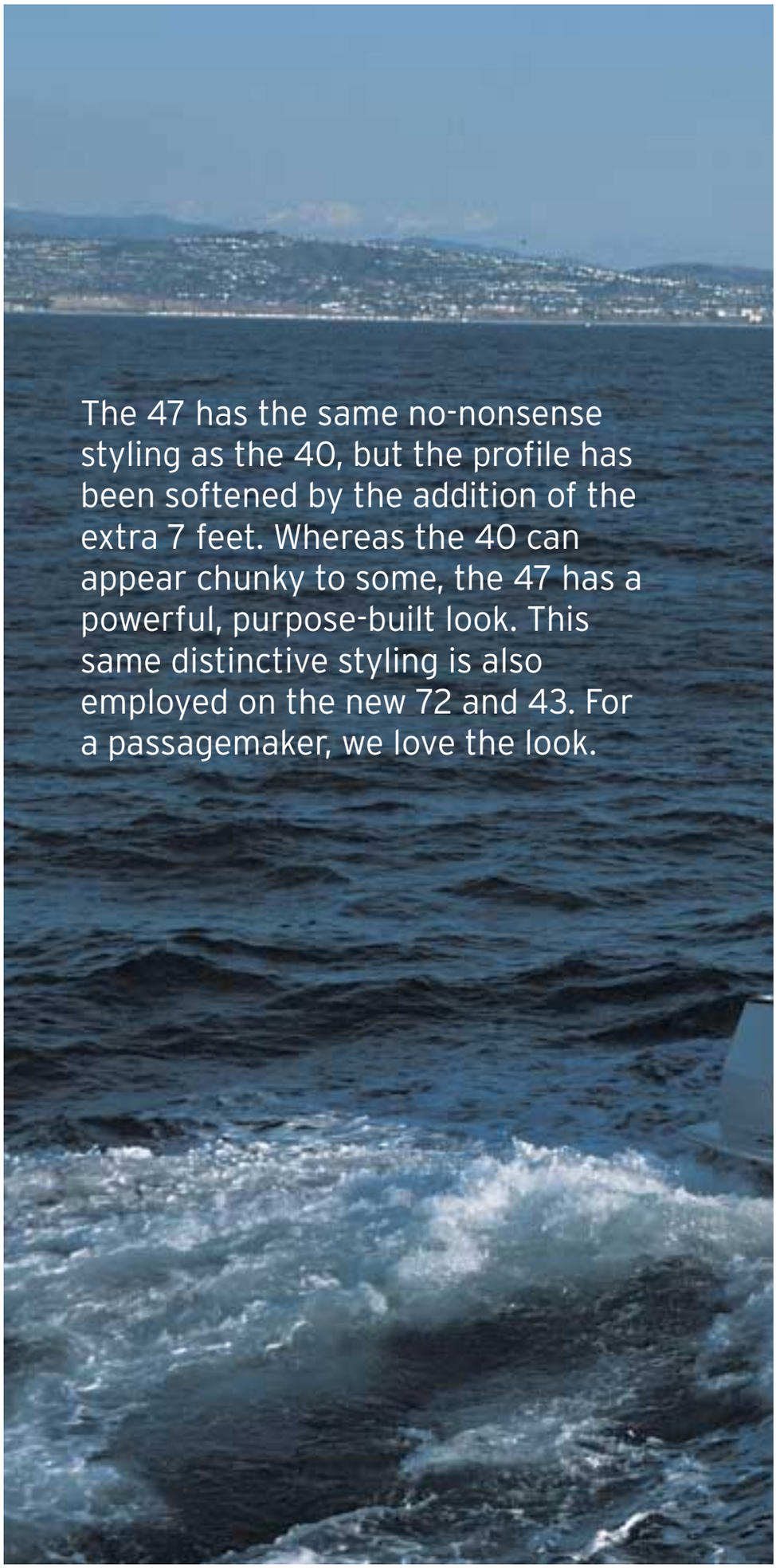
The new 47 has more room in spades: The spectacular pilothouse is large enough to comfortably host six people, probably the maximum one would have aboard the 47 while cruising, and it has its own wet locker. There is room for a comfortable helm chair. The owner's stateroom has a walk-around bed and a spacious head. The galley is full size, with an additional 5 cubic feet of freezer capacity down below. The 47 has a separate washer and dryer (Yes!), with external venting assuring fast drying and less moisture inside the boat. There are two sleeping areas in the saloon for rough-weather passages. There is no shortage of space in the engine room for all manner of optional machinery.

The 47 has the same no-nonsense styling as the 40, but the profile has been softened by the addition of the extra 7 feet. Whereas the 40 can appear chunky to some, the 47 has a powerful, purpose-built look. This same distinctive styling is also employed on the new 72 and 43. For a passagemaker, we love the look.

Commentary provided by owners in the companion article covers many of the outstanding features of the new 47, and the data page provides detailed information about the boat. Here, we'll note highlights of our eight hours aboard Hull #1.

Under way, the low level of machinery noise is immediately noticeable, thanks in part to a honeycomb material called Nidacore used in bulkheads and deck beams. The dry-exhaust system empties 29 feet above water, so all one hears on deck—even on the boat deck—is a pleasant burble. The 4:1 reduction gear turns the 34-inch propeller slowly, efficiently and quietly.

The 47 is well thought-out from a boat user's perspective, especially access to all the components that need routine service or maintenance. Excellent design has gone into the pilothouse electronics panel. If the instrumentation changes and the



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new stuff doesn't fit the old holes, a new face panel can be made inexpensively by any carpenter and simply dropped into place.

In the engine room, fuel filters, tank access, engine components, and generator are all within easy reach without one having to be built like an orangutan. The walk-in, stand-up engine room is every trawler owner's dream. It boasts an elegant yet simple fuel manifolding system which provides a small day tank and the ability to meter fuel so closely that it can determine fuel consumption down to the last tenth of a gallon. Virtually every gallon of fuel is burnable because fuel is taken from the bottom of the two main tanks holding 1,450 gallons in all. It's a gravity-feed system that even a dolt in mechanical matters can operate like a pro. A nice touch is the stainless steel rail around the engine, great to lean on while working on the Lugger turbocharged six.

The 47 comes with a comprehensive 130-page manual that covers every onboard system in detail. PAE has a full-time engineer dedicated to compiling and verifying the manuals, each one custom-written for every boat delivered, not just one generic manual per model. Arguably, PAE manuals are the best in the industry.

The fore-and-aft bed, as opposed to athwartships, in the midships master stateroom and the large, well-designed master head sized for real-world people shout comfort and convenience. Another nice touch comes in the guest stateroom where the head has been located forward against the chain locker, so guests can sleep farther aft than, say, in the Nordhavn 40.

The standard four-burner stove looks like it belongs in a restaurant kitchen. The granite counter tops give the galley an upscale air, and only brand-name appliances are installed.

The fit and finish throughout the boat are terrific. You cannot beat having truly experienced boatbuilders apply their skills and talent to a vessel. And say what you will about teak, it still looks right in a boat as beautifully crafted as the Nordhavn. In the cosmetic department, up on the optional flying bridge, one flub is the failure to build non-skid into the mold and having to resort to linear polyurathane paint with nonskid. Inconsequential, but an unusual slip.

An isolated fuel tank feeds the 40-hp Yanmar wing engine with V-drive transmission and Martec folding propeller (top). The Hynautic steering ram, autopilot pumps and watermaker prefilters are clustered in the lazarette. House batteries are also located in the lazarette. The main engine primary fuel filter is a duplex Racor 900, with another Racor used in fuel transfer.

Seating space in the saloon is less than one would expect on a boat this size, but a consequence of having given so much space to the fabulous galley and the spectacular pilothouse.

After the first five 47s were built in Taiwan, construction shifted to a new factory in Xiamen in mainland China. A lot of parts will be shipped to China from Taiwan, says Joe Meglen, one of the founding partners in PAE. "Hull #6 of the 47 will be the first boat built in China. Anything less than at least equal quality is not an option. If we have to throw 10 times the labor at it, we'll do it, because #6 will be better than #5."

Nothing but the best of everything is the theme that runs through the 47, but Nordhavn quality has a price. You do get what you pay for, and, obviously, a record number of customers are willing and able to pay for the 47.

"The 47 definitely has a magic to it in terms of the customer's reaction," says Jim Leishman, as witnessed by the rate at which buyers are responding to interior volume, appealing design and decent pricing.

But is it the perfect passagemaker?

The Beebe bible tells us that a proper passagemaker must have certain qualities and characteristics. They are detailed in Voyaging Under Power and summarized in later pages of this magazine. Not surprisingly, the Nordhavn 47 does not stray from the principles and parameters laid down by Beebe, since the people at PAE are unabashed adherents to Beebe. They'll tweak the lines a bit, add two bulges below the waterline, and load up their boats with the best of everything that customers demand, but the people at PAE remain true believers.

They are dedicated to the proposition that a man and wife can cross oceans, and voyage anywhere they wish, under power, in comfort, and with dispatch. That's what the Nordhavn 47 is admirably suited to do. Time will tell how perfectly it can perform in such service.

So far, the closest anyone has come to creating the perfect passagemaker in under 50 feet is PAE, with its venerable 46. The old girl has a lead of four score boats and three circumnavigations, but the new boy shows great promise. C

SPECIFICATIONS

Nordhavn 47

General dimensions

Length overall ..... **51 ft**
Length on deck ..... **47 ft 6 in**
Length waterline ..... **43 ft 4 in**
Beam overall ..... **16 ft 1 in**
Beam waterline ..... **15 ft 6 in**
Draft at max weight ..... **5 ft 1 in**
Air draft mast up ..... **29 ft**
Air draft mast down ..... **15 ft 3 in**
Ballast ..... **8,000 lb**
Displacement ..... **84,749 lb at full load, max cruising weight**
Displacement ..... **37.83 long tons**
Displacement/Length **450**
Beam/Length ..... **.35**
Above/Below water **2.5:1**
Prismatic coefficient ..... **.61**

Machinery

Standard engine ..... **Single Lugger LP668T.2 diesel**
Power output ..... **173 hp at 2,400 rpm**
Transmission ..... **ZFW 220 3.96 to 1.00**
Propeller shaft ..... **2 1/4-in Aquamet 17, tapered**
Propeller ..... **4 blades, 34-in diameter**
Exhaust type ..... **Dry exhaust in stainless steel**
Cooling system ..... **Fernstrum Grid Cooler, fresh water**
Engine instruments ..... **Oil pressure, water temperature, voltage, revolutions, hour meter, with alarms**
Engine controls ..... **Morse levers and cables**
Engine access ..... **From owner's cabin and lazarette**

Construction

Material ..... **Fiberglass, solid series of laminates in hull, cabin sides cored with Klegecell R75 foam, cabin top and deck cored with EGB Baltek (9-12 lb per square foot)**
Deck and hull joint ..... **Between the flange: 3M 5200 Inside of joint: 2 layers M & W.R. Mechanical fastening: 1/4-in stainless thrubolts on 6-in centers**
Longitudinals ..... **Hull: port and starboard, engine beds and floor stringers Topsides: longitudinal and vertical stringers**

Accommodations

Number of staterooms ..... **2 standard, 3 optional**
Number of berths ..... **5 standard, 7 optional**
Salon ..... **Seating for 6**

Performance

Maximum speed (S/L 1.4) ..... **9.2 knots**
Coastal-cruising speed (S/L 1.29) ... **8.5 knots**
Long-range speed (S/L 1.12) ..... **7.34 knots**
Range at long-range speed ..... **3,500 nm**
Estimate of range based on test tank data with no reserve

Designer: Jeff Leishman

Price of base boat:

$760,000 As at January 2003

Equipment highlights of base boat (not a complete inventory):

Hynautic hydraulic steering system; 30-inch stainless steel destroyer-type steering wheel; Emergency tiller: to attach to top of rudder post and stow in lazarette; Raritan Atlantis Heads #A5F12 fresh water flush only; Two (2) Worthington 20-lb LPG bottles in port side transom locker; 4 x 255+ AH (8D) Lifeline batteries for house appliances (1,020 amp hours) and one additional 8D for engine starting; All wiring used throughout boat is tinned wire and color coded; Conduits for future electrical installations, PVC from mast step to pilothouse, PVC from engine room to pilothouse; Heart Freedom 30 3,000-watt inverter/battery charger; GE Spacesaver compact washer and dryer; Teak and spruce floors; Cabinetry/paneling in teak with satin varnish; Teak dinette table; Teak valance over windows; Stainless steel double bow roller to accommodate a 110 Bruce anchor on starboard roller and the port roller to be designed for a second light anchor or for mooring lines; Maxwell 12-volt VWC 3500 windlass mounted on a molded FRP base; Pilothouse and saloon windows to be 12-mm tempered glass by Diamond Seaglaze; Pilothouse and saloon doors by Diamond Seaglaze, Dutch-style.

Some options:

- Flybridge, including Todd helm, fixed fiberglass seating, cushions, engine room controls, bow thruster and windlass remote, table — $29,746
- Naiad active stabilizers with 6-square-foot fins — $32,500
- PAE passive paravane stabilizing system — $12,500

Galley

Refrigerator Freezer ..... **Sub Zero with icemaker**
Countertops ..... **Granite**
Flooring ..... **Ceramic tile or stone**
Cabinetry/paneling ..... **Teak with satin varnish**
Cooking ..... **Thermadore stove and oven with LPG conversion for 4-burner stove and electric oven, and GE Space Saver XL1800 microwave oven**
Trash ..... **Broan trash compactor**

Fuel

Capacity ..... **2 main tanks totaling 1,450 gal with one centerline aluminum 80-gal day tank to gravity feed from main wing tanks**
Access ..... **Inspection plates positioned for interior access by average man**
Gauges ..... **Sight gauges provided for both tanks and vented into main vent system for each tank. Top of supply reservoir holds 2 gal and is fitted with a sight gauge with 1-gal range and 10th gal marks for fuel consumption**
Transfer ..... **Transfer manifold and Walbro fuel pump with timer switch and Racor 900 fuel filter which can transfer fuel from one tank to another and scrub fuel while transferring, and fill top part of supply reservoir for consumption**

Tankage

Fuel ..... **1,450 gal**
Freshwater ..... **400 gal**
Greywater ..... **110 gal**
Blackwater ..... **120 gal**

Contact

Pacific Asian Enterprises, P.O. Box 874, Dana Point, California 92629 / Telephone 949-496-4848 / Facsimile 949-240-2398 / E-mail: info@nordhavn.com / Site: www.nordhavn.com

NEW FROM NORDHAVN

Flagship!

Is it a fool's errand to travel a thousand miles to Southern California to "see" a boat that hasn't yet been built? Most definitely not.

The all-new Nordhavn 72 springs vividly to life in conversations with her designer and the management team at Pacific Asian Enterprises. The excitement in Dana Point is infectious.

"The 72 is our finest work to date," Dan Streech asserts. "We'll do many more boats in the future, but this is the current culmination of everything we've learned in the past quarter of a century. Systems, elegance, noise control, fit and finish, safety—you name it, we've built it all into the 72." Streech is president of PAE, the firm that builds and sells the Nordhavn line, and acting project leader on the N72 during the run-up to production.

"You have to start with a good-looking boat. If it doesn't look good, it's hopeless. Simply being technically correct isn't enough," says Jeff Leishman, PAE's naval architect, noting that yacht design is 70 percent art and 30 percent science. He starts with an existing hull form he knows and that feels good, and then begins tank testing, tweaking the design to conclusion against the test results.

To appreciate the marvels of the N72, you have to understand the nature of the people who will

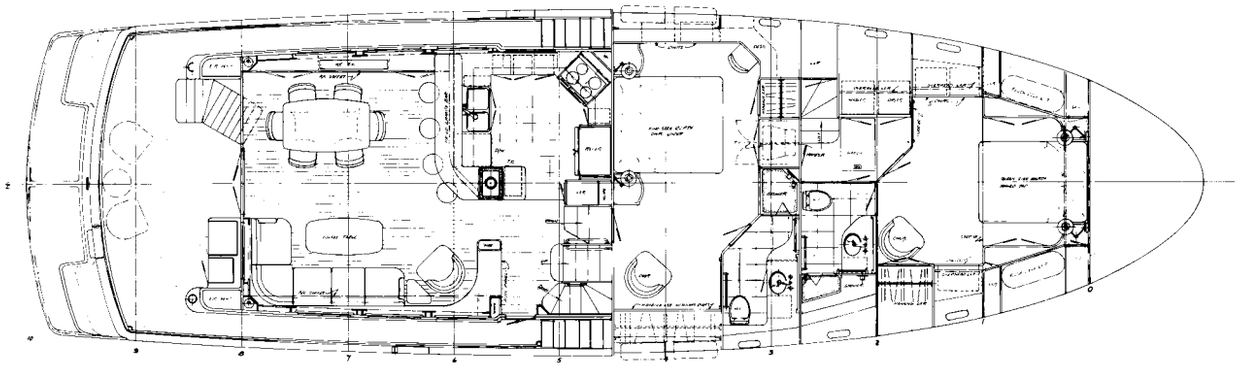
The new 72 will be the best Nordhavn to date, the culmination of everything the people at PAE have learned in the past quarter of a century. Systems, elegance, noise control, fit and finish, safety– PAE plans it all for its flagship

By Garrett Lambert

build it. PAE was established by passionate boaters who started as sailors and moved to power. After producing close to 300 Masons–generally considered among the world's most respected long-range sailboats–PAE has continued to maintain a single over-arching requirement for its products: Every PAE boat is capable of long-range cruising and a successful ocean passage. Of the present fleet, at least four Nordhavns have completed circumnavigations (three N46s and one N40) and the company says it has lost track of the number of ocean crossings.

Asked about price and cost consciousness, Streech's reply provides another clue to the company's business philosophy: "We do not price for market segment or competition because price-value is relatively easy for us. We are a low overhead company. Our ratio of costs to gross sales makes it easy for us to pack a bunch of value into the boat. We never have to cut corners," he says.

"Most of the basic costs are fixed, so we just put the best of everything on it. All our internal discussions are about how to make it better, never how to shave a percent off a component. In fact, we're almost always 10 percent in front of the buyer's perception of the boat, because improvements are made as the boats are built, but his pricing has not changed. >



Take a guided tour

Between the flying bridge and engine room, there's space, utility and luxury

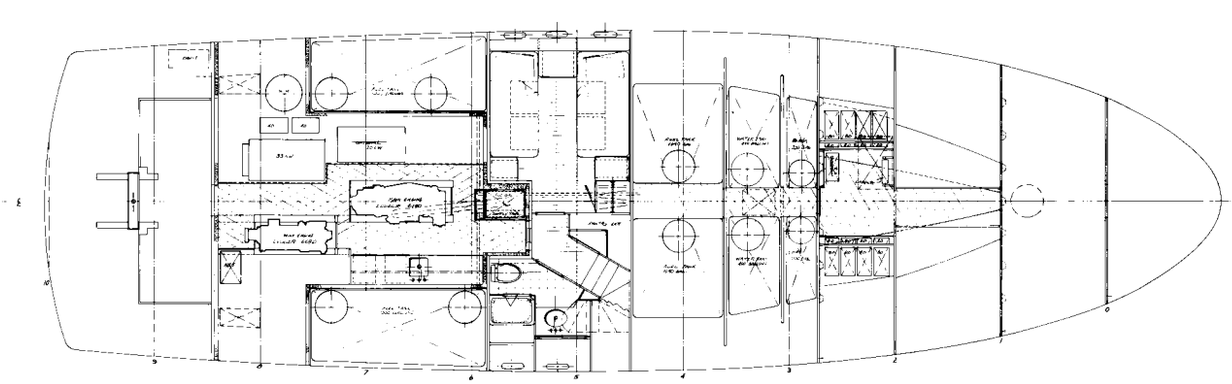
Since interior fittings on the Nordhavn 72 will be produced to the buyer's choice, a brief virtual walk-through of the major spaces offers a sense of what is possible.

We board via the integrated swim platform and pass through a gate to the partly sheltered aft deck where there's plenty of room for a couple of lounging chairs and tables. From here a staircase leads us up to the boat deck, which will comfortably accommodate a 20-foot tender. A hydraulic crane driven by its own motor and pump is tucked along the port rail, and will drop the tender beside the stern to enable easy boarding from the swim platform. With the tender off the deck, this huge space offers many possibilities for entertaining. A staircase to the flying bridge brings us to another large lounging area with a U-shaped settee, wet bar, refrigerator, and of course, helm chairs and a navigation station. Steps lead down from either side to the wrap-around Portuguese bridge from which port and starboard doors open to the wheelhouse.

However, we'll return to the boat deck and enter the wheelhouse via the interior staircase on the port side, then continue down to a commodious guest suite. (We're now under the forward deck and directly in front of the master suite which is separated by a solid bulkhead.)

Returning to the wheelhouse, we note the division of the space. Forward, a couple of helm chairs offer comfort at the vast nav station, as does a large, raised settee just behind them, while the 15 windows provide excellent sight lines. Behind the settee on the port side is a fully enclosed captain's cabin with ample storage, while a head is to starboard. A staircase between the cabin and the head takes us aft and down to the saloon, from which we continue descending to the midship master stateroom. This suite occupies the full beam of the boat, and "generous" would be an inadequate description of the room and storage it offers.

From the saloon, we also have the option of a separate set of steps to descend to the spacious engine room, in front of which is a twin-bed cabin with head opposite. Because the engine room insulation is so extensive, these accommodations are suitable either for crew or extra guests. The saloon is the main living area of the boat, and offers three distinct spaces. Forward and to port is a gourmet galley that would look at home in a luxury residence. A granite counter with four stools is a great place for breakfast or a quick lunch, but for elegant meals, a gracious dining suite is located on the aft port side. Opposite the dining area to starboard is a long, L-shaped settee which with casual chairs and low tables invites lounging. A wide sea door takes us to the aft deck to disembark.



Ever wonder what determines the size of new boat? The N72 provides a fascinating answer. PAE had long wanted to add a bigger boat to its line, and, for a time, sketches of an 84-footer adorned the office walls. However, until this year none of the three factories that build the current models had the physical capacity to go larger than the N62. The decision to build two new factories in 2002 eliminated that restriction, and when Leishman saw he had a free hand to design a boat of any size, he sketched out an 88. He and the business and marketing managers who form the core of the development team then entered a period of vigorous discussion. Since PAE works hard to sustain close relationships with its family of owners, it has an excellent grasp of what's on their minds concerning improvements to the boats they now own, as well as their aspirations for future purchases. At the same time, there was a natural desire to develop more clientele.

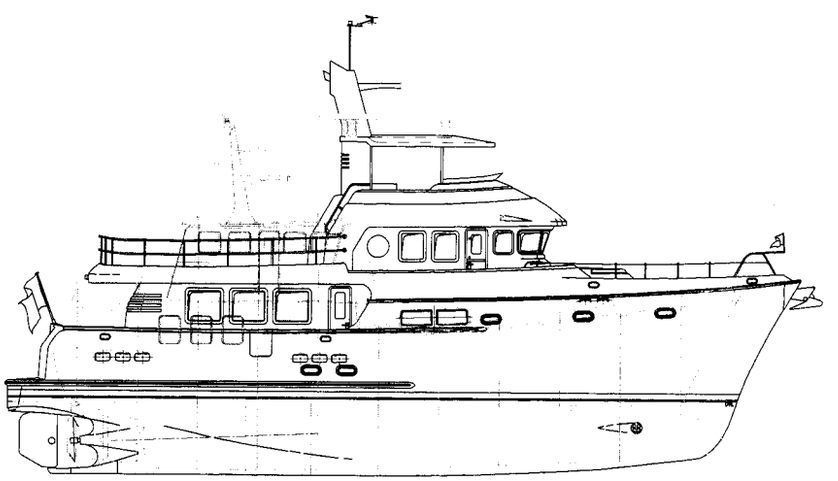
During the early discussions, it was suggested the N62 had reached maturity, and the new boat should replace it. Leishman pumped out a sketch for a 65. However, as the discussions moved along, the N62—characterized by Streech as "an almost venerated boat with a karma bigger than itself"—enjoyed an unexpected resurgence. The market had spoken, and it was decided the N62 should remain in production. Moreover, Jim Leishman, vice-president and main marketing man (and elder brother of Jeff) observed that the trend was increasingly toward larger boats, and that N62 owners who wanted to move up had nowhere to go but elsewhere. Joe Meglen, secretary-treasurer of the company and a founding partner, was adamantly in favor of the 72, insisting it would be a mistake to do a smaller boat.

As discussions ebbed and flowed, the size of the new boat shrank and expanded like an accordion until Jeff had produced and accumulated more than a hundred concept drawings. "The creative soup that leads to a boat is complicated until a new model emerges that is different enough from the others to make it appeal to buyers," explains Streech. However, as everyone narrowed his focus on what would constitute the optimal boat, the N72 finally presented herself. The 72 is a response to the market, notes Jim, and "although people will pay a premium price for a premium product, they will happily discover that the N72 will be more complete and have more features and value than her competitors." A new boat of this size represents a million-dollar investment in the molds, he adds, so "you have to be sure what the market wants before you proceed."

Although only 10 feet longer than the boat she was to have replaced, the accompanying illustration dramatically demonstrates how the N72 actually has about twice the interior volume. The N72 is also ample evidence of just how far PAE has moved from sailboats and into the world of power. Unlike the N62's wineglass shape, her beam is carried far back and down close to the waterline to produce a more seakindly hull, less prone to pitching, and with more initial stability. "Solid as a rock," says Jeff.

And if the boat is remarkably bigger, Jim contends it's still the tiny details that ultimately matter to its safety, performance and comfort. PAE principals spend a lot of time enjoying their own products. Consequently, they are constantly tweaking the design parameters, especially little things arising out of suggestions from Nordhavn owners, and their own experiences. One small example on the 72 is the absence of a spray strake. PAE's trip around the world in the N40 convinced them that the noise of the water deflected by the strake made the forward cabin uncomfortable while under way.

Designing a boat raises numerous issues sure to evoke strong reactions among boaters, especially trawler owners. One such issue was whether the N72 should have a bulbous bow. PAE believes that a bulb offers benefits, and installs one on the N62, N57 and N50 because it provides an undeniable reduction in resistance and, therefore, also in horsepower requirements and fuel consumption. Additionally, the bulb reduces pitch by as much as 22 percent. However, in certain head-sea conditions, the bulb will come out of the water and then cause an irritating pounding when plunging back in. While this action is harmless structurally, it can be unnerving and bites into the fuel savings gained with the bulb. >



Although only 10 feet longer than the Nordhavn 62, the illustration dramatically demonstrates how the Nordhavn 72 actually has about twice the interior volume. The N62 continues in production.

For the N72, PAE concluded that hull design could realize the bulb's primary stability benefits without the bulb. By giving the N72 a full stern, Jeff achieved not only more inherent resistance to pitch, but gained significant space inside. Among the dividends was an engine room with space to spare. Streech believes that, "Whereas N72 owners would notice the presence of a bulb, they certainly won't notice its absence." Nonetheless, he and his partners decided to offer the N72 in two bow configurations, as the bulb does offer undeniable benefits. "Depending on the buyer's choice, we will set up the mold in either a bulbed or bulbless configuration. Either way, the resulting hull is a one-piece seamless unit."

Each N72 buyer can now ask himself how he will be typically using his boat and select the appropriate bow for his intended use. Marty Wilson, owner of *Karma*, Hull #15 in the N62 series, completed the "downhill" 2,800-nautical-mile passage to the Marquesas consuming less than 1,500 gallons of fuel. "Marty did not experience any bulb pounding on that passage and relished every drop of fuel saved by the bulb," Streech says. "Anyone who has made the gruelling 'uphill' trip from Dana Point to Seattle will probably not have kind words about the bulb."

So, what's the new boat actually like?

While the N72 can readily circumnavigate, it deviates from the traditional Nordhavn mold in several ways. Nordhavn fans will be struck by its noticeably more mainstream appearance. However, the reverse slope windows are still there, and for the same good reasons: safety and energy conservation. The first N72s will be built with the wheelhouse midships, a layout that PAE believes will appeal to about 80 percent of the customer base. In fact, until the new 47, all Nordhavns, even the 35, looked more "shippy" than "yachty," because Nordhavns are truly small ships.

That said, the company will remain true to the other 20 percent of its possible clients, most of them traditionalist Nordhavn enthusiasts whom PAE values highly. Therefore, after Hull #5, PAE will introduce a second model of the N72, one with an additional deck and an aft wheelhouse, a look evocative of the N62, but with all the advantages of the new 72.

PAE also accepts that buyers in the multi-million-dollar category are unlikely to be confined to one set of answers. Thus, a suggested interior layout will be only a starting point, and other than what comes out of the molds, everything will be amenable to customization. Nevertheless, clients can expect to be engaged by PAE personnel in a lively debate over choices that affect performance, reliability, and safety, for the company preaches what it practices.

Power will normally come from a single 535-hp Detroit 60 main engine backed up by a wing engine with a folding prop and an independent fuel source and supply system. However, PAE is nothing if not responsive to clients, so when the purchaser of Hull #2 asked for twin main engines Jeff provided for them and did so elegantly. ("Really sweet" is how he describes it.) Streech explains: "The hull mold will have two large removable panels. When a twin-engine hull is being molded, the panels are removed so that molds can be inserted port and starboard to form the skegs, while another plug modifies the aft section of the keel. Thus, the twin-engine hull will have molded in skegs in a one-piece seamless unit with the hull. The skegs make the twin engine boat a 'proper' offshore boat in that the propellers are protected and the rudder will have a lower bearing attachment point."

The engine will be electronically controlled. Once again, another issue guaranteed to spark lively debate wherever trawler owners gather. Most owners like to keep things simple, and almost all express a general preference (wistfulness?) for naturally aspirated engines. Unfortunately, no matter how reliable those engines might be, anything putting out much over 100 hp cannot meet even current clean-air requirements, let alone the new regulations in the works. Thus, engine manufacturers are necessarily moving to solutions that add complexity.

And this is actually good news for the N72. "An electronic engine is a natural for this kind of boat since an engine needs to be able to reach its stated RPM, to which props are pitched accordingly," explains Streech. "However, at anything less than full stated RPM, the engine is under-loaded. The simple reality is that engines in Nordhavn boats are typically run at about 40 percent of maximum RPM."

Tank testing establishes the power required to move a boat through the water at hull speed—far less than most people might think. While more is required under difficult sea conditions, sustained full power would only be called upon in an emergency. Normally, the engine is backed down to meet the prop's demands for the conditions, and that means the engine is always in an under-loaded condition. Because mechanical-injection pumps are calibrated to be correct at full loading, they are notoriously inefficient at the power level boaters actually use.

"In the real world," says Streech, "electronic engine control delivers fuel efficiently and avoids soot and

"Although people will pay a premium price for a premium product, they will happily discover that the Nordhavn 72 will be more complete and have more features and value than her competitors."

vibration." Nevertheless, although their automobile engines prove the reliability of electronic controls, boaters worry about failure. Fortunately, even if that were to happen, the engine would continue to run and power the boat in fail-safe mode, just a lot less efficiently.

Streech suggests that if the belt-and-suspenders combo of main and wing engines isn't enough assurance, owners can always carry an extra main engine "E-brain," a small flat box mounted on the bulkhead that can be swapped out easily.

Most engine problems arise not because of mechanical or electronic breakdown, but because of dirty or contaminated diesel. Thus, every fuel tank on the N72 is fiberglass and has easy cleaning access and its own sight gauge and filters. Simple-to-use fuel transfer and control systems ensure ready availability of clean diesel at all times. A flow meter on the engine provides fuel consumption data to ensure against errors on long passages, and is backed up with a simple but accurate gauge on the day tank.

Coolant temperature is maintained by a closed-loop fresh-water keel cooler. In addition to eliminating the danger of debris being sucked into the system, this installation removes the need for raw water pumps and heat exchangers, both maintenance-intensive and prone to failure.

With no sea water being pumped into the boat, there is little incentive to install water-cooled exhausts, yet another system with vulnerable components. However, PAE knows that wet versus dry exhaust is just one more of the many subjects on which boaters have strong views, and so will install a wet system if the customer demands it. However, the company is absolutely committed to the benefits of dry-stack exhausts, arguing that although they are considerably more expensive, their reliability and convenience are simply too convincing to be ignored. Streech states unequivocally, "We're just so good at doing them that more than 200 well-used Nordhavns have never had a dry-exhaust problem of any kind. And, of course, they also put the exhaust up and away from the boat so that you never smell it or get residue deposits."

The engine room is also home to the hydraulic system that enables this undeniably large vessel to be operated easily. Mooring? Remote control winches manage the anchors and assist with the heavier line handling jobs. Docking? Control centers positioned around the boat enable the captain to use the bow and stern thrusters to slide the ship sideways to the dock, and then pin her there gently while he sets her mooring lines. Under way? Stabilizers control roll to ease the ride.

Electrical demands on this yacht are expected to be huge, with lighting requirements alone consuming in excess of two kw, and appliances such as the restaurant-quality galley stove and the full-size clothes dryer needing 240 volts. Because the direct current loads of instrumentation and exterior lighting are also heavy, PAE designed the N72 as its first 24-volt DC boat.

Power is produced by two independent self-contained generation systems. While under way, the central hydraulic system drives two 250-amp 24-volt generators at constant speed. These charge the battery banks which, in turn, supply all the direct current required and also feed two 120-volt 4-kilowatt inverters stacked to produce both 120 and 240 volts. At anchor, a 33-kw Northern Lights generator easily provides as much electricity as anyone might want. And if the boat happens to be berthed with a (relatively) measly 30-amp 120VAC shore power feed, the vessel's basic systems will still function thanks to the switching logic of the isolation transformer and the power-sharing features of the Trace inverters.

The N72 is the first boat with a complete firefighting system that includes dampers which drop down on the vents. Ready access to all wiring and plumbing is built into the basic design, fuel filters are mounted in convenient locations, and all major mechanical components are positioned to facilitate service.

Because this is a big vessel, many might suggest or prefer a professional crew, and suitable accommodations are provided. However, with control systems located at all strategic points and with hydraulic bow and stern thrusters, an experienced owner would not have the slightest difficulty operating this boat single-handed.

After PAE receives a boat for delivery, it assigns a dozen technicians to go through every system, testing and tuning for days. When everything is certified, a sea trial is undertaken before turning it over to the new owner, usually a weekend trip to Catalina Island. Everything on the boat is put to use, from making water to doing laundry. As often as possible the new owner is aboard so the cruise can offer the benefit of familiarization.

The warranty is for one year, but PAE says it does whatever is necessary, whenever, wherever to make its customers happy. A 24/7 service is provided for everything on the boat other than the electronics the client orders himself. "When a boat's in trouble someplace, we never ask about money," says Streech. "We only want to get the boat fixed and moving again, then we sort out the money details later."

So, assuming you have $3 million and change to spend, when can you get your hands on a new N72?

The queue has formed, with Hull #1 and #2 sold, as this was written in January 2003. The first N72 is planned to hit the water in June 2004, but with typical PAE caution, is promised for three months later. Hull #3 will be available in early 2005.

SPECIFICATIONS

Nordhavn 72

General dimensions

Length overall	73 ft 11 in
Length on deck	72 ft
Length waterline	65 ft
Beam overall	21 ft
Beam waterline	19 ft 2 in
Draft at max weight	6 ft 11 in
Air draft mast up	34 ft 6 in
Air draft mast down	n/a
Ballast	14,000 lb approx
Displacement	200,000 lb at half load
Displacement	89.3 long tons
Displacement/Length	326
Beam/Length	.29
Above/Below water	2.1:1
Prismatic coefficient	.58

Machinery

Standard engine	Single Detroit 60 diesel
Power output	535 hp
Transmission	Twin Disc 3.43:1
Propeller shaft	4-in Aquamet 22
Propeller	4 blade, 50 x 31 in
Exhaust type	Dry exhaust in stainless steel
Cooling system	Charged air & gear circuit keel cooler and jacket water circuit, R.W. Fernstrum
Charging system	2 x 24-volt, 250-amp hydraulically driven Electro dyne alternators; 33kW Northern Lights Generator; 280 amps @ 24 volt from two Trace 4024 inverter/ chargers; one Charles 80 amp @ 24 volt suitable for 50/60 Hz operation
Engine controls	Electronic DDEC at six (6) stations
Engine access	From lower level, salon and lazarette

Construction

Material	Fiberglass
Deck and hull joint	Precision fit H/D joint, thru-bolted and laminated where accessible. Capped with 2 x 7/16 in polished stainless steel rub rail
Hull	Single series GRP laminate with 10 full length longitudi nal hat-section stringers plus engine stringers and transverse floors and 5 watertight compartments
Topsides	Single series GRP laminate
Deck	GRP laminate, balsa cored horizontal surfaces, Klege-cell foam cored vertical surfaces

Accommodations

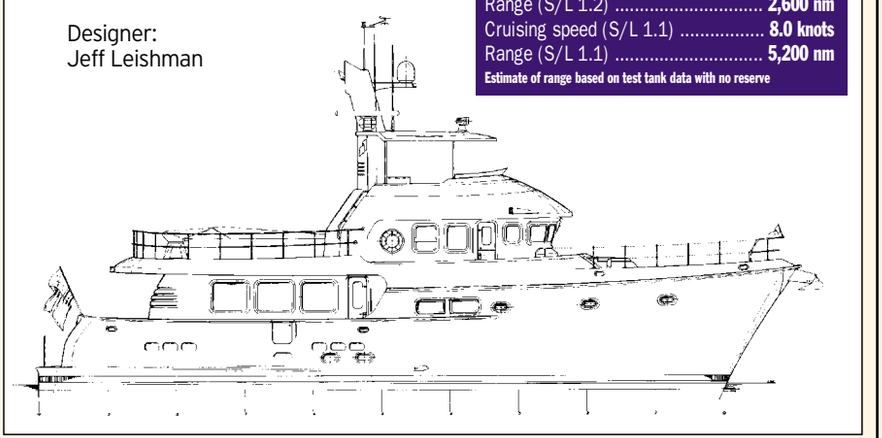
Number of staterooms	4 standard
Number of berths	8 standard

Performance

Maximum speed, single engine	11 knots
Maximum speed, optional twins	12 knots
Cruising speed (S/L 1.2)	9.6 knots
Range (S/L 1.2)	2,600 nm
Cruising speed (S/L 1.1)	8.0 knots
Range (S/L 1.1)	5,200 nm

Estimate of range based on test tank data with no reserve

Designer:
Jeff Leishman



Price of base boat:

$3,365,000

Vessel delivered U.S. West or East coast per standard specifications. Freight, U.S. duty and commissioning included. As at January 2003.

Equipment highlights of base boat (not a complete inventory):

Dry exhaust for main engine; Lugger 668D Wing Engine w/ Hurth "V" drive marine gear and Gori three-blade folding propeller; 33 KW Northern Lights generator in sound enclosure; American Bow Thruster hydraulic system: 38hp bow and stern thrusters with proportional controls, Trac 370 digital stabilizing system w/ 16 sq. ft. fins; Cruisair tempered water air conditioning system; Fireboy fire protection system; Sealand vacuum toilet system; Four custom STIDDS helm chairs; Dual Maxwell 4500 vertical hydraulic windlass w/ dual plow type stainless anchors and 800 feet of 1/2-in chain; Dual Maxwell 2200 vertical capstan winches mounted in cockpit; Pacific Coast Marine doors; Custom Marquip 2500lb hydraulic davit with extendible boom; Flybridge with FRP top; 42-in flat screen TV with Bose sound system.

Some options:

- Bulbous bow or no bulbous bow. In a Nordhavn first, the hull mold for the N72 has been designed and built with a removable bow section. There are two bow mold units, one with an eliptical shaped bulb, the other, a conventional non-bulbous stem. This allows for one-piece monolithic hull regardless of which bow is chosen.
- Single or twin engines. The standard N72 has a single engine, but twins are available. The hull mold is fitted with removable sections for insertion of skeg molds. The molded in skegs are part of the one-piece monolithic structure of the hull and provide protection for the propellers and lower bearing attachment points for the twin rudders.
- Standard configuration or "Wide Body". The port side of the saloon can be moved outboard, eliminating the outside walking deck, and expanding the width of the saloon by 21 inches.

Galley

Refrigerator	Sub Zero side-by-side refrigerator/ freezer with teak panels
Freezer	Two GE 5-cu-ft freezers in lazerette
Countertops	Granite
Flooring	Ceramic tile or stone
Cabinetry	All teak
Cooking	Thermadore LPG stove with electric oven. GE Advantium convection/ microwave oven with exhaust blower
Trash	GE Monogram 12-in SS compactor

Fuel

Capacity	4 main tanks totaling 4,300 gal with one centerline aluminum day tank at 80 gal
Access	Completely accessible via man-hole-sized inspection plates and removable baffles
System	Aluminum supply reservoir feeds by gravity from all 4 tanks. Top part, approx 2 gal, fitted with sight gauge with one-gal range and 10th gal marks for fuel consumption checks. Bottom part approx 78 gal, drain valve at bottom for water and debris purging and with water sensor, light & audible alarm in wheelhouse if excessive water present. Reservoir fitted with five (5) draw spigots for main, 2 generators, wing engine and spare, mounted at lower level of reservoir but above water sensing probe.
Transfer	Transfer manifold and 24vdc Oberdorfer gear pump 3.5-gpm fuel pump with timer switch and Racor 1000 fuel filter with 10 micron element which can transfer fuel from one tank to another and scrub fuel while transferring

Tankage

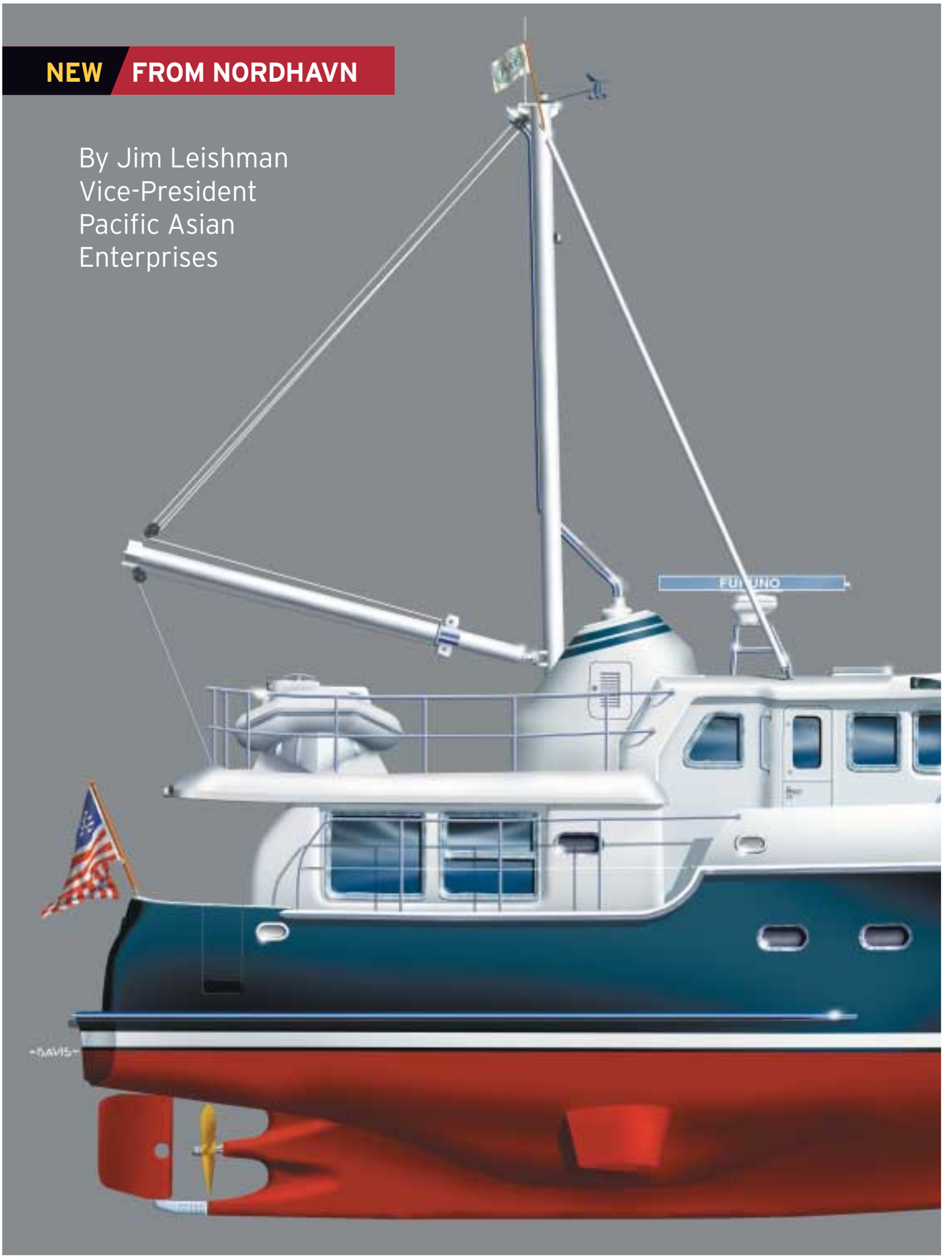
Fuel	4,300 gal
Freshwater	800 gal
Greywater	200 gal
Blackwater	200 gal

Contact

Pacific Asian Enterprises, P.O. Box 874, Dana Point, California 92629 / Telephone 949-496-4848 / Facsimile 949-240-2398 / E-mail: info@nordhavn.com / Site: www.nordhavn.com

NEW FROM NORDHAVN

By Jim Leishman
Vice-President
Pacific Asian
Enterprises



Pure passagemaker

The design for the new Nordhavn 43 was not driven by financial studies or marketing strategy. Instead, it's a statement of how PAE can build a great small passagemaker, given all that we know in 2003 about building boats. It just happens to come out at 43 feet, rather than 42 or 44, or some other number

Using lessons learned from our record-setting circumnavigation with the Nordhavn 40, Pacific Asian Enterprises has designed a 43-foot passagemaker with many of the features and capability of the best-selling Nordhavn 47 but in a smaller, more affordable package.

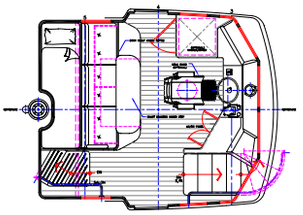
Compared to the N40, we've expanded the interior space, added three feet of water line length, and provided 300 more gallons of fuel to give the N43 greater range. To insure maximum comfort at sea, the owners cabin is located amidships. The guest accommodations, too, are fairly far aft—more than 10 feet farther aft than the N40 owners cabin—with a second guest head and stall shower located all the way forward.

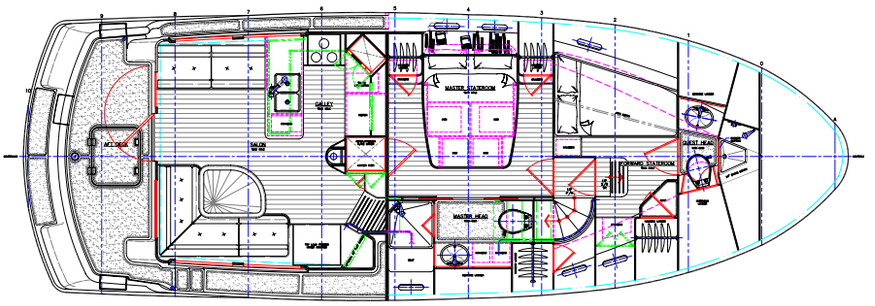
From a standpoint of motion, the midships location of the owners cabin almost on the axis of pitch makes it ideally placed to provide comfort and rest in the toughest of offshore conditions. Additionally, it's isolated from chain noise while the boat is anchored. The owners head has unique double-doors which open into the owners cabin. The head is quite large, and the transition between the cabin and head should enhance both areas.

A huge wheelhouse allows adequate space for a large helm chair and a 6-foot 4-inch settee and pilot berth. Beneath the settee there are full-size chart drawers and added storage space. The dash and helm configuration have been carefully designed to allow easy maneuvering and to accommodate a complete complement of electronics. A chart table is provided along with cabinet space for reference material. For ventilation, a Lewmar overhead hatch is included and the lower panels of the Diamond Seaglaze front windows are opening. Wheelhouse windows have been enlarged for maximum visibility and are half-inch tempered glass. Heavy duty, double dogged Dutch Doors further enhance the exceptional pilothouse.

The galley configuration will provide all that is necessary for the most ambitious of cruising plans. A Force 10 LPG stove and oven, microwave and trash compactor are all standard. A Sub Zero

The slightly offset saloon creates a walkway to starboard without diminishing any aspect of the interior.





combined refrigerator-freezer with ice maker provides almost eight feet of refrigerator space and two cubic feet of freezer. An additional five-cubic-foot, top-loading freezer is provided opposite the galley.

The spacious saloon includes port and starboard settees, which not only provide comfortable lounging space for up to eight people but also can be used for sleeping in an overflow situation or during periods of rough weather where the guest cabin might be too uncomfortable. The two settees provide optimum comfort for two and easy viewing of the TV panel designed to accommodate the buyer's choice of flat-screen TV. Entrance to the saloon is through a Dutch door and three of the five half-inch-thick saloon windows are opening, for optimum ventilation.

The aft deck measures twelve by four and a half feet, with port and starboard boarding doors as well as an access door to the integral swim step. The overhanging boat deck allows the area to be enclosed for cruising in inclement weather. A large lazarette is accessible through a weather-tight hatch and abundant storage is provided.

Other on-deck features are typical of the Nordhavn line, including a raised anchoring platform with a Maxwell 3500 windlass and a heavy-duty double-bow roller. Integral deck storage boxes are molded-in forward of the Portuguese bridge. The boat deck can accommodate up to a twelve-and-a-half-foot tender with additional room for kayaks or water toys—even a motor scooter. A flying bridge option will be offered.

The new 43 should be a quiet boat as it is heavily insulated, with careful attention to gasketing of doors and hatches and closing of all wiring and plumbing runs.

For propulsion, the venerable Lugger L668D has been selected, producing 113 horsepower and differing from the N40 and N46 only in the transmission selection. Fitted with a ZFW 2200 transmission, and a reduction gear of 3.97 to 1, the Lugger spins a two-inch Aquamet shaft and 32-inch propeller. The big reduction gear allows use of a larger diameter and slower speed propeller—enhancing efficiency and reducing noise levels under way. Dual alternators are standard along with a large Walter keel cooler and stainless steel dry exhaust system. Five and a half feet of headroom are provided within the engine room for easy servicing of machinery. The main access is through the owners cabin, however a smaller hatch is provided in the saloon for access to the engine room if the stateroom is occupied.

Maximum speed will be 8.5 knots with normal cruising speed of about 8 knots. At an ocean-crossing speed of 7 knots, the computer projection is for a calm-water range of 3,360 nautical miles. The projection indicates a fuel burn of 2.5 gallons per hour at 7 knots, 3.5 gallons per hour at 8 knots.

An exceptional fuel system delivers all 1,200 gallons of fuel from molded fiberglass fuel tanks to a central supply reservoir, dramatically simplifying operation and increasing reliability. The reservoir allows precise fuel consumption checks of the engine and generator, plus it collects water and debris within its sump. A pet cock is provided to drain off water and debris from the sump. The reservoir is fitted with a water sensor and alarm located within the wheelhouse, alerting the crew if water is present long before it reaches the water separators within the Racor filters.

Within three months of the preliminary announcement about the N43, 11 boats were ordered by enthusiastic customers. Hull #1 should launch in January 2004 at South Coast Marine in Taiwan, a long-time PAE partner The base price of Hull #11 through #20 is $550,000.

A unique feature of the N43 is the slightly offset saloon. The starboard side of the vessel provides for a full walkway—eighteen inches wide—from the aft deck to the Portuguese bridge. This has been done with no compromise to the interior. A hand rail will allow crew to comfortably walk from the bow to the stern—even while hanging onto a connecting line between a bow mooring and stern mooring. Port side access, on a six-inch-wide deck, will be about the same as the 40.

The Nordhavn 43 will prove to be a highly refined world cruiser, offering exceptional range and comfort under way and for dockside living. Designed using the knowledge gained over a quarter century and built to the highest standard of quality, this addition to the Nordhavn fleet may prove to be the most popular yet.

AT A GLANCE

LOA	43 ft
LWL	38 ft 4 in
BEAM	14 ft 10 in
DRAFT	5 ft 03 in
DISPLACEMENT HALF LOAD	53,540 lb
Cp.	.59
D/L	425
WATER CAPACITY	300 gal
FUEL CAPACITY	1,200 gal
BLACK WATER HOLDING TANK CAPACITY	60 gal
GRAY WATER HOLDING TANK CAPACITY	50 gal

HI TECH AND HIGH POWER

When it comes to desirable features, user interface and screen definition, the Furuno 1953C is the cream of the crop. This rugged, waterproof unit offers professional features that meet the needs of serious mariners.

This Radar/Chart Plotter has a sunlight viewable 10.4" color LCD display and is engineered around a powerful X-Band transmitter that cuts through all types of weather. In fact, because this is a TRUE color Radar that shows 6 levels of target density, you can use this Radar to track storms. The Chart Plotter is a full function plotter with a variety of display modes to view. You can even overlay Radar targets onto a chart. Choose between two units that accept either Furuno and Navionics or C-MapNT mini chart cards. You can even add a GPS/WAAS sensor to get an accurate position fix.

The 1953C is part of the NavNet family. The entire NavNet line includes a variety of display sizes and output power. Select from displays in 7", 10" or 10.4" and power output from 2.2kW all the way to the new 12kW. Use them as stand-alone systems or as part of an Ethernet network with multiple displays.

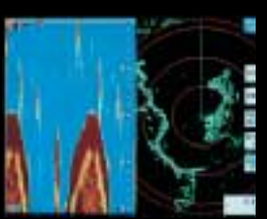
Each unit comes standard with an infrared remote control. Other options available include video input and output, Network Sounders, Weatherfax/Navtex receiver and GPS/WAAS receiver. Put Furuno's hi tech, reliable power to work for you today.

www.Furuno.com

FURUNO®

Everything else is a compromise!

10.4" COLOR LCD RADAR



There are more than 50 different display modes to choose from when all of the components are connected to NavNet.

Using the optional #008-523-070 video interface kit, you can show external video on the 1953C in full screen or picture in picture.

Passagemaking the
world

Our special section on passagemaking begins with passage notes from dozens of Nordhavns voyaging outside U.S. waters as well as those cruising closer to home. Then, seasoned passagemakers share lessons they have learned around the world

The Great Escape

Harris Saunders Jr.
Life Support
Nordhavn 62 #3

- Nautical miles cruised: Thousands in six years-plus.
- Cruising grounds: Alaska, Inside Passage, Mexico, Panama, the Keys, Caribbean to Tobago, Bahamas, U.S. East Coast, Great Lakes, Mississippi.
- Cruising plans: Virgin Islands.

Dan Evins
Temenos
Nordhavn 62 #7

- Nautical miles cruised: 8,000 over five years.

• Cruising grounds: California to Alabama via Panama Canal, (Coco Island en route), Gulf Coast of Florida, Florida Keys, Mexico.
• Cruising plans: Bahamas.
• Why Nordhavn: The enjoyment is being on board . . . under way, at anchor or tied to the dock.

David and Karen Crannell
Adventure
Nordhavn 62 #22

• Nautical miles cruised: About 5,000 since January 2002.
• Cruising grounds: Dana Point, California, to Campbell River, British Columbia; Desolation Sound, Victoria, Seattle, Friday Harbor, Vancouver, San Francisco, and Ensenada, Mexico.
• Cruising plans: Depart February 2003 on a circumnavigation, first to Mexico, then French Polynesia, New Zealand, Australia, the Mediterranean, Virgin Islands. In March 2005, head for Panama, Mexico and Southern California, Alaska, with Christmas in Florida.
• Why Nordhavn: The capability to go anywhere we might dream to go.
• Why cruising: First, make new friends. Second, see places we have dreamed of seeing. Third, being our own captain.

David McDowell
Aurora
Nordhavn 62 #16

• Nautical miles cruised: 6,000 over two years. *Metaroo*, my new 62 #24, will be ready in spring.
• Cruising grounds: British Columbia, Inside Passage, Alaska.
• Cruising plans: Mexico, Costa Rica.
• Why Nordhavn: Quality and safety.
• Why cruising: Natural beauty of remote coastlines and quiet anchorages. >

Photo: Milda Drueke

Circumnavigators Heidi and Wolfgang Hass of the Nordhavn 46 *Kanaloa* enjoy a deserted beach in the Louisiade Islands of Papua New Guinea.

Nordhavn owners love getting away from it all in comfort and safety—and value the friendship of fellow trawler travellers

By Joe Hvilivitzky with Rebecca Crosgrey

C. C. Fichtner
Annabelle VI
Nordhavn 57 #1

- Nautical miles cruised: 6,000 in two years.
- Cruising grounds: Maine to Exumas.
- Cruising plans: Bahamas.
- Why Nordhavn: Safety and stability.
- Why cruising: Being away from the crowd with family.

Wayne and Laurel Hill
Long Ranger
Nordhavn 57 #4

- Nautical miles cruised: 26,000 since May 1998 (liveaboards since September 1998).
- Cruising grounds: Seattle to Alaska, West Coast, Mexico, Central America, Panama, East Coast from Florida to Maine, Bahamas, Nova Scotia.
- Cruising plans: Leave Florida in January for the eastern Caribbean.
- Why Nordhavn: We like the beefy construction, stand-up engine room and the beautiful esthetics of our Nordhavn.
- Why cruising: We find traveling by boat more fun and interesting than land travel, and we have our "home" with us. Of course, we have reconfirmed our belief that boaters are wonderful people. The places we've seen and people we meet have made this trip the adventure of our lives.

Carol and Marvin Baker
Tiger Eyes
Nordhavn 57 #14

- Nautical miles cruised: 7,000 since August 2000.
- Cruising grounds: Miami to Maine, Florida Keys, Gulf Coast of Florida to Sarasota.
- Cruising plans: Bahamas.
- Why Nordhavn: *Tiger Eyes* is strong with a spacious engine room, raised pilothouse, few below-the-water through-hull fittings, economy of fuel, fine workmanship and joinery, easy to live aboard.
- Why cruising: Having adventures together; meeting new people; sharing the helm and boat maintenance; anchoring; being close by whales and porpoises.

Evelyn McGlone and Erik Dalaker
Evrik
Nordhavn 57 #15

- Nautical miles cruised: 16,000 since February 2001.
- Cruising grounds: Mexico, British Columbia, Costa Rica, Panama Canal, Caribbean, visited the San Blas Islands on the north shore of Panama, stopped at many places for diving, Florida, Nantucket, Martha's Vineyard, Cape Cod, Florida Keys for the winter.
- Cruising plans: Exuma Island in the Bahamas, Maine, maybe Nova Scotia, explore more of the Caribbean.
- Why Nordhavn: Mostly the quality and comfort. We designed our boat a bit differently. We have a full galley, fully equipped to prepare scrumptious gourmet meals. We have two staterooms which are nice and wide. We also appreciate the seaworthiness. We have been in 40-foot seas many times and I don't think we could have conquered the heavy weather in other boats. It's a great boat; everybody that sees it oooooohs and ahhhhhs. The teak, the quality, it's just lovely and seaworthy.
- Why cruising: Totally the adventure, the new experiences every day, meeting different people from different walks of life. You never know from day to day where you're going to sleep, who you are going to meet, what you are going to do.

Jim and Carlen Eckford
Zia
Nordhavn 57 #20

- Nautical miles cruised: 5,600 since January 2002.
- Cruising grounds: Mexico, Channel Islands, Sacramento Delta, San Francisco Bay, Monterey, etc.
- Cruising plans: Mexico, San Juan Islands in Pacific Northwest, and then the U.S. East Coast.
- Why Nordhavn: The stoutness of the boat coupled with the great service by PAE. They are the best.
- Why cruising: Navigation, and being able to enter all the great spots from the water, as opposed to crowded roads and campsites. The best place in most cities is the harbor.

Jim and Deb Yeates
BurntSand
Nordhavn 57 #23

- Nautical miles cruised: 1,500 during four months as owners.
- Cruising grounds: Northern Mexico to San Francisco area.
- Cruising plans: Puerto Vallarta.
- Why Nordhavn: Very well built and seaworthy.
- Why cruising: The challenge of learning, and seeing new places.

Photo: Donna Forrest

Bill and Roni Grady
Thor
Nordhavn 57 #25

- Nautical miles cruised: This one delivered June 2002; prior 50-foot model owned since July 1999.
- Cruising grounds: Pacific Northwest, San Juans, British Columbia.
- Cruising plans: The Inside Passage as soon as time allows.
- Why Nordhavn: Obviously we are pleased, since we purchased our second one. They are reliable and safe, with a redundancy of systems.
- Why cruising: With our busy schedules we have limited time to travel. We can be confident that even with our tight schedules *Thor* will get us to and from any destination under any conditions the Northwest has to offer.

"You learn something every day. Particularly when you go offshore and you have to watch your Ps and Qs about currents and anchorages, you always learn something . . . which is frequently humbling."

Tom and Linda Selman
Prime Time
Nordhavn 50 #7

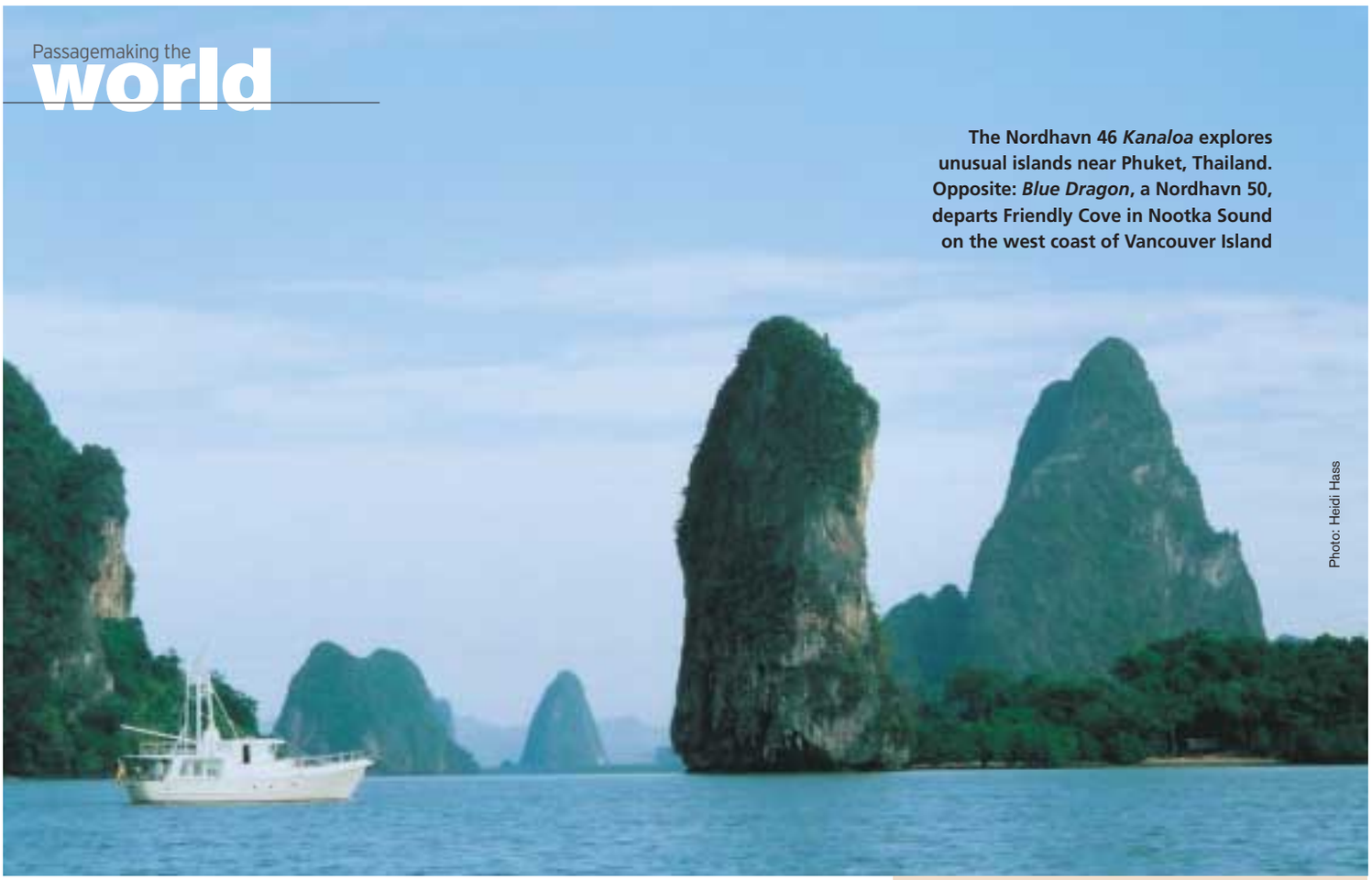
- Nautical miles cruised: 12,000 since January 1999.
- Cruising grounds: Puget Sound, Alaska, British Columbia.
- Cruising plans: Alaska again in summer 2003.
- Why Nordhavn: Comfortable ride, even in difficult conditions; quality construction; PAE's no-nonsense approach to their customers' needs.
- Why cruising: New places, new people and the sense of self-sufficency.

Robert Lundeen
Blue Dragon
Nordhavn 50 #10

- Nautical miles cruised: Nearly 5,000 over three years.
- Cruising grounds: Alaska, around Vancouver Island, northern British Columbia up to Bella Coola, a lot of cruising around San Juan Islands.
- Cruising plans: I'm going to take the boat out of Puget Sound and down the Washington Coast and up the Columbia River.
- Why Nordhavn: The boat is very easy to handle. I do some cruising singlehanded on short trips. I can handle it myself, but frequently I have inexperienced crews where I have to do most of the driving. This model is very user-friendly. Also, this model has a beautifully arranged engine room where it is very easy to get at the essential things on the boat to maintain and keep them clean.
- Why cruising: You learn something every day. Particularly when you go offshore and you have to watch your Ps and Qs about currents and anchorages, you always learn something . . . which is frequently humbling. But I think it's a real challenge, and I like to be out on the water and

Photo: Peter Arneil

Onward, **a Nordhavn 40 owned by Tom Hall and Liz McLoughlin, pauses for picture-taking on the Inside Passage of British Columbia. Opposite: Ron and Nancy Goldberg aboard Nordhavn 46 *Duet*, with Tristan and Maggie, at Beaufort, North Carolina.**



The Nordhavn 46 *Kanaloa* explores unusual islands near Phuket, Thailand. Opposite: *Blue Dragon*, a Nordhavn 50, departs Friendly Cove in Nootka Sound on the west coast of Vancouver Island

Photo: Heidi Hass

get away from the normal chores you have to do at home. It's really a change in lifestyle.

Kean and Jennifer Werner
Tranya
Nordhavn 50 #11

- Nautical miles cruised: 6,000 in two and a half years.
- Cruising grounds: Both sides of Central America, U.S. East Coast, Caribbean south to Trinidad.
- Cruising plans: Unknown, but some place warm.
- Why Nordhavn: Comfort, safety, and our solar array.
- Why cruising: Meeting other cruisers and searching for the best beer.

Gary A. and Judy M. Card
Slo M-ocean
Nordhavn 50 #12

- Nautical miles cruised: 400 in a year and a half.
- Cruising grounds: Nowhere yet. Intracoastal Waterway, Jacksonville to Fort Lauderdale, to ship boat home to the Pacific Northwest (God's country).
- Cruising plans: Maybe Alaska.
- Why Nordhavn: No more sails, and it's air conditioned.
- Why cruising: Anchoring out alone.

Cathy and Dick Pedone
Dana A
Nordhavn 50 #14

- Nautical miles cruised: 7,500 over two years.
- Cruising grounds: East Coast, Gulf Coast.
- Cruising plans: Prince Edward Island, Canada.
- Why cruising: Freedom to travel when and where we want.

Scott and Rose Hallquist
Makai
Nordhavn 50 #15

- Nautical miles cruised: Took delivery March 2001.
- Cruising grounds: Sea of Cortez, Seattle, two summers in British Columbia, visiting our favorite gunkholes and yacht club outstations.
- Cruising plans: Alaska in 2003 and around the Northwest for the next few years until our daughter goes to college; then south to Mexico; possibly through Panama Canal to the East Coast and the Caribbean.

"What I enjoy most about my boat is that no matter what the sea condition, I have no worry that she will founder. This vessel is one tough cookie."

- Why Nordhavn: Great pilothouse (warm and dry), awesome electronics, smooth, stable ride, good liveability. If I built the boat anew, I would probably not opt for a flybridge since we seldom use it.

Mike Martus and Maria Kazanowska
Liberty Call
Nordhavn 50 #18

- Nautical miles cruised: 1,500 since

August 2002.
• Cruising grounds: Chesapeake Bay, Newport, R.I., and Fort Lauderdale, Fla.
• Cruising plans: Florida Keys, Maine, and Nova Scotia.
• Why Nordhavn: Seaworthy design, outstanding workmanship and better-than-average equipment and hardware, comfortable accommodations, easy to handle for two people, good support from manufacturer.
• Why cruising: Exploring new places, meeting other cruisers, being independent from shore support yet able to enjoy the comforts of home while anchored out.

Doing it in a Nordhavn is certainly much more enjoyable. Too old to wrestle with sails on the foredeck in the middle of the night.

Ron and Sandy Benson
Boundary Waters
Nordhavn 50 #21

• Nautical miles cruised: 0 (Only took possession three days before answering the questionnaire.)
• Cruising plans: Shakedown cruise around Southern California, then to Florida via Panama Canal, then to our home base in Chesapeake Bay.
• Why Nordhavn: So far, the quality of the vessel and the willingness of the Nordhavn people to make things right.
• Why cruising: We enjoy the solitude, beauty (and bounty) of nature, and the independence that cruising provides.

Photo: Andy Lund

Jim and Lynda Schroeder
Continuous
Nordhavn 50 #20

• Nautical miles cruised: 3,500 since June 2002.
• Cruising grounds: Pacific Northwest, Puget Sound, Gulf Islands.
• Cruising plans: California, Mexico, Central America.
• Why Nordhavn: Sturdy boat; lots of room (We're ex-sailboaters.) Great platform for grandchildren. We had two of them for two weeks in the Seattle area, and they loved it; the best time we have ever spent with them. Next year they are planning a month.
• Why cruising: Always like to see what is over the horizon. We lived aboard our sailboat for two years and sailed from Maine to Grenada twice.

Bill and Barbara Hakos
Tivoly
Nordhavn 50 #5

• Nautical miles cruised: 8,500 in the past four years.
• Cruising grounds: Both coasts of Florida, Intracoastal Waterway to Chesapeake Bay and back (three trips); and Chesapeake Bay.
• Cruising plans: Chesapeake and back to Florida.
• Why Nordhavn: Safety, economy of operation, comfort, and liveaboard convenience.
• Why cruising: Destinations, gunkholing and other boaters.

J. H. Nickersham Jr.
Gannet
Nordhavn 46 #1

• Nautical miles cruised: 3,000 since July 2001.
• Cruising grounds: Charleston, S.C., to Connecticut, to Cape Cod, to Maine, and back to Connecticut, now on Intracoastal Waterway to Florida and Bahamas.
• Cruising plans: Nova Scotia and Newfoundland.
• Why Nordhavn: Owned sailboats for 40-plus years, so I like being inside when it's wet and the temperature is 40 F.

Richard and Betty Heath
P. Gannet
Nordhavn 46 #3

• Nautical miles cruised: About 15,000 since 1993.
• Cruising grounds: Great Lakes, Florida, Newfoundland, Nova Scotia, Lake Superior via Atlantic coast, Hudson River, Lake Champlain, Richelieu Canal, and Trent-Severn Waterway.
• Cruising plans: Circumnavigate Newfoundland, then head south to Bahamas.
• Why Nordhavn: Sheer comfort. The pilothouse is magnificent; space is grand; storage is super. She is a delight for the northern climes, which we tend to favor.
• Why cruising: Since retiring in 1984, we have pretty much spent our time cruising. We love the places you can go that are not accessible by plane or car, the magnificent scenery, the fun experiences of the way others live. But most of all, the people we meet along the way, the locals or other cruising folk. We have made some of the best friends cruising.

Arthur J. Ferguson
Magellan
Nordhavn 46 #4

• Nautical miles cruised: 9,000 over four years.
• Cruising grounds: East and west coast of Florida, Florida Keys.
• Cruising plans: Cuba? >

• Why Nordhavn: Comfortable and seaworthy. Exceptionally well built.
• Why cruising: Getting away and visiting new places.

Bill and Ellen Bane
Chicory
Nordhavn 46 #6

• Nautical miles cruised: 2,200 in seven months of ownership.
• Cruising grounds: Chesapeake Bay; Hilton Head, South Carolina; Solomons, Maryland.
• Cruising plans: Caribbean in 2003-04, then either the Mediterranean or around the world
• Why Nordhavn: Solid, reliable, well designed, well built, elegant functionality that you continually discover as you learn more.
• Why cruising: Each day has a salty smell, but admittedly the warmer ones are better.

Douglas and Berna Levy
Salty-C
Nordhavn 46 #14

• Nautical miles cruised: 6,000-7,000 since March 2000.
• Cruising grounds: Four one-way passages from Florida to New Jersey, plus a few trips east from there.
• Cruising plans: Florida to the Abacos Islands.
• Why Nordhavn: We have been actively sailing 45 years prior to acquiring our Nordhavn. Because of physical injury, I was unable to comfortably manage sailing. The Nordhavn is a delight. Roomy, secure sea boat. We're very happy with her.
• Why cruising: It is a way of life. Our boating friends are special people quite different than our land friends. All are self-sufficient types who enjoy the sea.

Wayne and Patricia Davis
Envoy
Nordhavn 46 #19

• Nautical miles cruised: 4,800 since 2000; and 20,000-plus in our sailboat.
• Cruising grounds: Florida to North Carolina, to Chesapeake, Intracoastal Waterway and offshore, Bahamas.
• Cruising plans: Bahamas this winter; Caribbean in winter 2003-04.
• Why Nordhavn: Compared to our 50-foot sailboat, the livability is remarkable. The pilothouse keeps us warm (or cool) and dry even in the worst weather. With the paravane rig and Naiad hydraulic stabilizers, *Envoy* has proven capable of handling offshore passagemaking.
• Why cruising: For Wayne, it's about the voyage, the excitement of a new destination and the navigational challenges. For Patricia, it is the destination and enjoying the local culture and cuisine. We both enjoy getting to know the locals, and for a period of time becoming part of a local community. Our most pleasant surprise is the pleasure we derive from meeting fascinating people who are also enjoying a life aboard.

Dean and Maxine Proper
Cygnus
Nordhavn 46 #28

• Nautical miles cruised: 14,000 in three years.

Photo: Georgs Kolesnikovs

• Cruising grounds: Alaska to Beaufort, North Carolina, Florida to Bahamas.
• Cruising plans: Bahamas.
• Why Nordhavn: Best sea boat on the market.
• Why cruising: The people cruising and the people in the places we visit.

Trevor and Janet Jones
Lady Shona
Nordhavn 46 #29

• Nautical miles cruised: 4,370 since 1992.

"The boat is able to handle any conditions we are likely to encounter. It is one tough boat; very solid, seaworthy and has performed flawlessly with only minor peripheral problems in two years of fairly hard cruising."

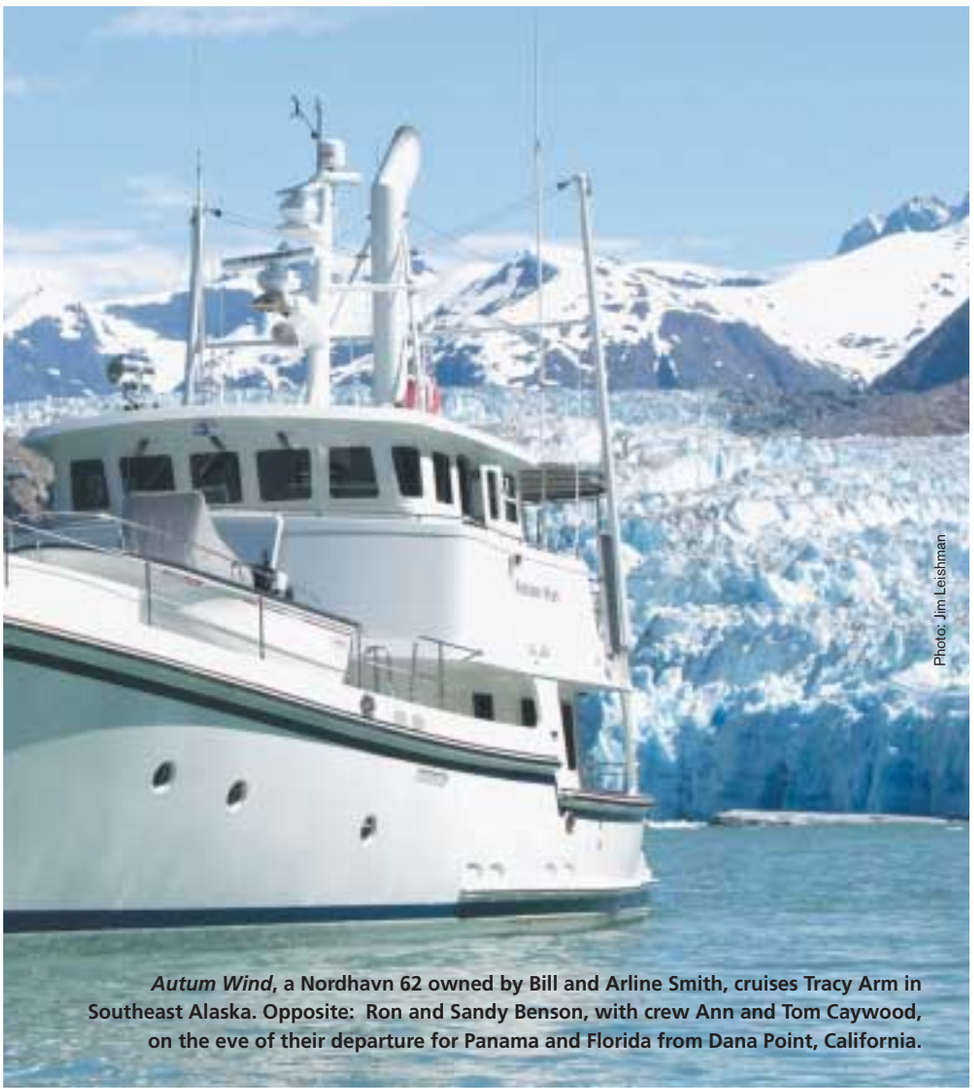


Photo: Jim Leishman

Autum Wind, **a Nordhavn 62 owned by Bill and Arline Smith, cruises Tracy Arm in Southeast Alaska. Opposite: Ron and Sandy Benson, with crew Ann and Tom Caywood, on the eve of their departure for Panama and Florida from Dana Point, California.**

• Cruising grounds: Twice to the Philippines, and in Hong Kong waters where Lady Shona is kept.
• Cruising plans: Thailand in 2004-05 via Philippines and Singapore.
• Why Nordhavn: We enjoy everything about it, cannot really be specific.
• Why cruising: Same as above.

Robert and Linda Stedman
L'Abri
Nordhavn 46 #31

• Nautical miles cruised: About 15,000 since 1998.
• Cruising grounds: Up and down the East Coast.
• Why Nordhavn: Her comfort in rough seas and her ease of handling.
• Why cruising: The beauty of the sea.

Linda and Ted Sussan
First Light
Nordhavn 46 #38

• Nautical miles cruised: 15,000 since 1994.
• Cruising grounds: New Jersey; east and west coasts of Florida, Abaco Islands, Bahamas.
• Cruising plans: March Harbor, Abaco, where *First Light* will spend the winter. We hope to have the opportunity to visit her, work schedule permitting.
• Why Nordhavn: What I (Ted) enjoy most about my boat is that no matter what the sea condition, I have no worry that she will founder. This vessel is one tough cookie. Security and safety top my list. However, I have to add that wherever we go, loads of people come over and admire her.

Martin and Brita Goldsmith
Gold Eagle
Nordhavn 46 #40

• Nautical miles cruised: About 20,000 over seven years.
• Cruising grounds: Multiple trips from California to Sea of Cortez.
• Why Nordhavn: We have enjoyed the comfort and safety of the Nordie, as well as the quality.
• Why cruising: The most enjoyable part of cruising for us is to get to places otherwise inaccessible.

Frederick T. Doane
Amphitrite
Nordhavn 46 #42

• Nautical miles cruised: 17,000; owned six and a half years.
• Cruising grounds: Alaska, British Columbia, San Juan Islands, Mexico, Panama, Florida, North Carolina, Chesapeake, Hudson River, Lake Champlain, six round trips Wilmington, North Carolina, to Burlington, Vermont.
• Cruising plans: Vermont and Bermuda.
• Why Nordhavn: Good boat in rugged weather; good research boat for limnology and fisheries studies; low fuel burn allows freedom from fixed schedules, fuel stops and marinas, etc.
• Why cruising: Boat is used mostly for academic research and living aboard. Minimal cruising is all we do.

Richard and Joanne Pisano
Dutchess
Nordhavn 46 #44

• Nautical miles cruised: 4,800 over six years.
• Cruising grounds: Annapolis, Md., to Maine, Long Island Sound to Nantucket and Martha's Vineyard.
• Cruising plans: Probably to Maine, and possibly to Bahamas via Florida.
• Why Nordhavn: Seaworthiness, comfort and reliability.
• Why cruising: Every day on the water is a great day.

Bill and Joy Surbey
Patience
Nordhavn 46 #45

• Nautical miles cruised: Close to 30,000 since October 1995.
• Cruising grounds: Mexico to Alaska and everywhere in between.
• Cruising plans: Go as far as we can up the Columbia River, hopefully to the Snake River.
• Why Nordhavn: She is so solidly built, so safe, she just wraps her arms around us when we're aboard.
• Why cruising: Meeting people, see-

ing our beautiful island home, Earth. Finding special places to anchor; to dine; to wander in the forest; to store as instant snapshots in the mind, that we can bring out back home.

Nancy and Ron Goldberg
Duet
Nordhavn 46 #50

- Nautical miles cruised: 2,500-plus since 2000.
- Cruising grounds: Chesapeake, the Keys, Intracoastal Waterway.
- Cruising plans: Bahamas, Chesapeake, the Caribbean, Panama Canal and the West Coast, Europe in 2004.
- Why Nordhavn: We feel very comfortable that our boat will take care of us in almost any conditions. There's a significant feeling of security offshore in her, and she is very seakindly. The more we do with her, the happier we are with her offshore manners. We wanted a boat with a proven offshore track record that could take us anywhere we wanted to go. The build quality is very good to outstanding in most places, and the boats hold their resale value.
- Why cruising: Our favorite thing about cruising is the people we meet and hence the friends we gain. The statement, "It's the journey, not the destination" really applies to cruising. We also like the self-sufficiency, (although some days we'd give our right arm for someone else to do the work) and get great personal satisfaction from achieving something new, like our first overnight passage.

Mac and Carole Baade
Venture Forth
Nordhavn 46 #52

- Nautical miles cruised: 4,500 since 1998.
- Cruising grounds: West Coast of U.S. and Mexico.
- Cruising plans: Will remain in Mexico for the foreseeable future; possible Panama crossing to East Coast.
- Why Nordhavn: A seaworthy and reliable and comfortable vessel with long-range capabilities.
- Why cruising: Adventure and camaraderie of a cruising lifestyle.

Nikolaus Zens
Moby Dick
Nordhavn 46 #55

- Nautical miles cruised: 250 since December 2001.
- Cruising grounds: Mediterranean (Cote d'Azur, Corsica, Sardinia).
- Cruising plans: Balearic Islands.
- Why Nordhavn: Security, comfort, cost-efficiency.
- Why cruising: Experience of nature, independence and autonomy.

Gordon Millar and Colette Mullins
Tiger Balm
Nordhavn 46 #60

- Nautical miles cruised: About 1,800 over four years.
- Cruising grounds: Local cruising around Hong Kong.
- Cruising plans: Philippines in April, May 2003, subject to political situation.
- Why Nordhavn: The sheer quality of the boat.

David and Jerri Reid
Reidiviva
Nordhavn 46 #61

- Nautical miles cruised: About 20,000 since May 1999.
- Cruising grounds: Canada, Mexico, Panama Canal, Key West, Florida, East Coast to New England, Bahamas.
- Cruising plans: Transport the boat back to the Pacific Northwest in 2003, but not sure. We operate pretty successfully on the No-Plan Plan.
- Why Nordhavn: Our boat has been wonderful and we are very satisfied with our decision to make her our home. We were not boaters before this decision to become full-time liveaboards and cruise. We bought the right boat and the two of us have managed her very well, covering the distance with just us as crew.
- Why cruising: We are passionate about our lifestyle and love everything about what we are doing.

Andrew and Linda Fraser
Kaisooba
Nordhavn 46 #66

- Nautical miles cruised: 1,000; owned boat two and a half years.
- Cruising grounds: Ensenada, Mexico, to San Francisco and points between; anchor out two to three times a month.
- Cruising plans: Canada and Alaska, south through Panama Canal, up the East Coast, down the Intracoastal Waterway and on to South Pacific.
- Why Nordhavn: It's a bullet-proof design built to go to sea. We find it to be very comfortable and livable and there's nothing that we do without.
- Why cruising: Discovering new and exotic destinations, meeting other people that are out cruising and

The Nordhavn 40 *Free Flight*, owned by Al and Dona Holmes, pauses for sightseeing on Glacier Bay, Alaska.

Photo: Al Holmes

swapping stories, and enjoying the wildlife that we see along the way.

Danny and Kristine Fletcher
Failte
Nordhavn 46 #69

- Nautical miles cruised: 4,000-plus in two years of ownership.
- Cruising grounds: Brownsville to Clear Lake, Texas, via the Intracoastal Waterway and the Gulf of Mexico.

Photo: Bob Towery

"We also like the self-sufficiency, (although some days we'd give our right arm for someone else to do the work!)"

- Cruising plans: Matagorda State Park.
- Why Nordhavn: Quality and safety.
- Why cruising: It's not working. It's relaxing.

Russ and Donna Sherwin
Four Seasons
Nordhavn 46 #70

- Nautical miles cruised: 10,000 since October 2000.
- Cruising grounds: San Francisco to Sea of Cortez, Mazatlan, La Paz, Santa Rosalia, Loreto.
- Cruising plans: Back to Mexico.
- Why Nordhavn: The boat is able to handle any conditions we are likely to encounter. It is one tough boat; very solid, seaworthy and has performed flawlessly with only minor peripheral problems in two years of fairly hard cruising.
- Why cruising: The adventure, meeting all kinds of people, from millionaires to beach bums (usually can't tell the difference), and the wide-eyed wonder of doing all this when we were scared to death just three years ago. We chose Nordhavn to "take the boat out of the equation" in terms of things to worry about. Cruising has given us bragging rights among our friends and other yachties, and to our own surprise we are now considered the "experts" in our small circle. Who woulda thought?

David and Sharon Smith
Tai Mo Shan
Nordhavn 46 #75

- Nautical miles cruised: 2,000 in the last year.
- Cruising grounds: Hong Kong to Philippines.
- Cruising plans: Philippines and Palau.
- Why Nordhavn: Out of the four boats I have owned and lived on, this is by far the best quality of build, design and seaworthiness.
- Why cruising: The wild, gray yonder!

Al and Dona Holmes
Free Flight
Nordhavn 40 #7

- Nautical miles cruised: About 12,000 over four years.
- Cruising grounds: Circumnavigated the major islands and some of the minor ones in southeast Alaska over two summers, circumnavigated Vancouver Island.
- Cruising plans: Alaska, California, Mexico, Costa Rica, Panama Canal and up the Eastern Seaboard.
- Why Nordhavn: The secure feeling. We have taken her in some pretty rough seas and have always felt comfortable. There were a couple of times when we were in an area and a storm kind of crept up on us, and you can't scurry real fast on seven knots. We were in probably 12- to 15-foot seas and we were just fine. She's very comfortable, she's roomy enough for us, and our cat loves her too.
- Why cruising: Going to out-of-the way places and enjoying the scenery, not having to go to marinas and not being around tons of other boaters.

Jerry Martin
Discovery
Nordhavn 40 #8

- Nautical miles cruised: 4,000-plus since November 1999.
- Cruising grounds: Great Lakes and Canada.
- Cruising plans: The Great Loop and the East Coast.
- Why Nordhavn: It's rugged, it's bullet-proof, it's a super boat. I'm also in the Coast Guard auxiliary, and I use the boat for search and rescue in Lake Michigan. It's a good boat for that. When everyone comes in, we can go out. Even the Coast Guard likes it.
- Why cruising: It's the only time that

Photo: Mike Martus

The Nordhavn 50 *Liberty Call*, owned by Mike Martus and Maria Kazanowska, departs Galesville, Maryland. Above: Donna and Russ Sherwin aboard their Nordhavn 46 *Four Seasons*.

the family gets together for an extended time.

Bruce Welch and Lonnie Mark
Double Dragon
Nordhavn 40 #11

- Nautical miles cruised: 15,000 over two and a half years.
- Cruising grounds: California to Alaska, Panama Canal, Rhode Island.
- Why Nordhavn: Solid construction.
- Why cruising: Having your home with you.

Larry and Jane Brown
Atlas
Nordhavn 40 #12

- Nautical miles cruised: 300 since July 2002.
- Cruising grounds: Chesapeake Bay.
- Cruising plans: Bermuda, Hudson River and New York canal system, North Carolina bays and rivers.
- Why Nordhavn: The boat's strength and reliability; product support from Nordhavn.
- Why cruising: Freedom, seeing new areas, meeting other cruising folks.

Viktor and Diane Grabner
Loreley
Nordhavn 40 #16

- Nautical miles cruised: 8,200 over two years.
- Cruising grounds: Dana Point, California, to Port Townsend, Washington; Puget Sound; Alaska.
- Cruising plans: San Juans/Gulfs (winter); Vancouver Island (spring.)
- Why Nordhavn: Excellent quality, good reliability, wonderful handling in all seas and weather.
- Why cruising: Independence; seeing many new things; nautical and navigational challenge.

James B. Frantz
Albedos
Nordhavn 40 #17

- Nautical miles cruised: 4,200 over two years.
- Cruising grounds: Pacific Northwest.
- Cruising plans: Unknown.
- Why Nordhavn: Nice boat overall.
- Why cruising: Exploring.

Photo: Richard Kidd

Klaus and Elizabeth Loehr
Chinook
Nordhavn 40 #20

- Nautical miles cruised: 8,600 since March 2001.
- Cruising grounds: Dana Point, California, to Port Angeles, Washington, British Columbia, Alaska.
- Cruising plans: Detailed explorations of the west coast of Vancouver Island and British Columbia.
- Why Nordhavn: Our Nordhavn 40 meets or exceeds all the claims and specifications issued by PAE. It is a safe, sturdy and comfortable vessel with excellent economy and range. We avidly use the boat and cruise the distance, with 5,000 nm the first year and 3,600 the second, living aboard for over six months a year.
- Why cruising: The scenery, the sea life, meeting new friends and seeing old ones. The freedom of choosing passages and destinations, and the self-reliant responsibility of making each day, each passage, and each season safe and pleasurable.

Allan and Nancy Salzman
Annabelle
Nordhavn 40 #22

- Nautical miles cruised: 12,000 over two seasons.
- Cruising grounds: Cape Cod, Long Island.
- Cruising plans: Maine.
- Why Nordhavn: Quiet, comfortable, easy to maintain.
- Why cruising: Family being together; separation from the "real world."

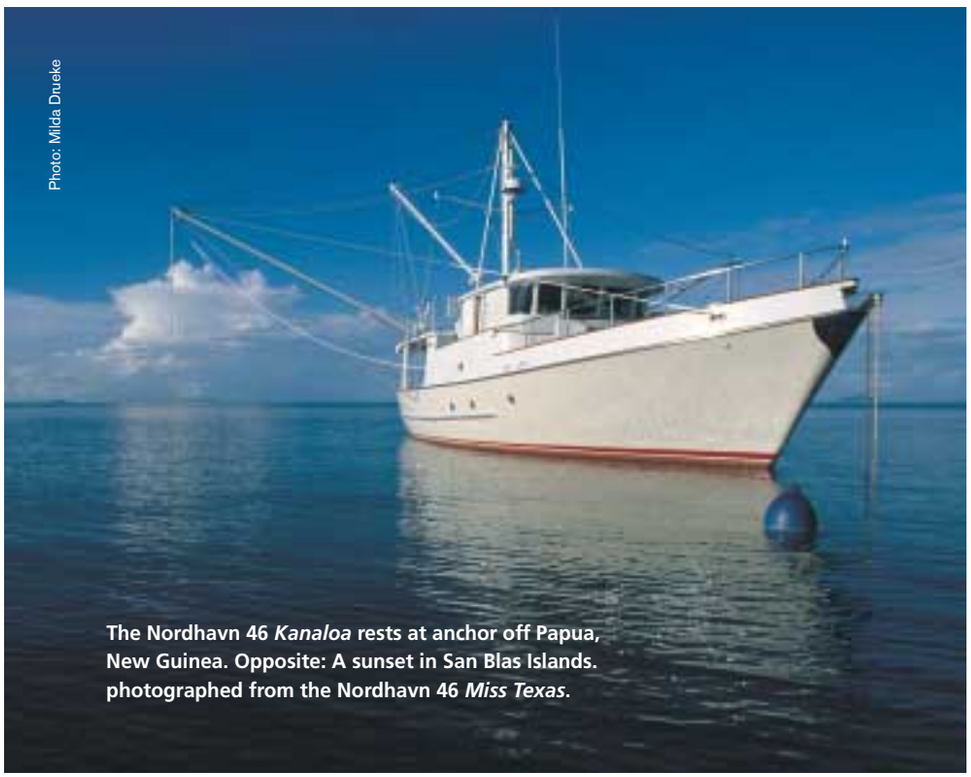
"Great platform for grandchildren. We had two of them for two weeks . . . and they loved it; the best time we have ever spent with them."

Herb and Theresa Bash
Blue Fairway
Nordhavn 40 #26

- Nautical miles cruised: Owned the boat almost two years; haven't added up the mileage.
- Cruising grounds: Seabrook, Texas, to Fort Myers, Florida, across the Caloosahatchee to Stuart, up the Intracoastal Waterway to Hilton Head, South Carolina, and back to Stuart.
- Cruising plans: Bahamas in January for some fishing.
- Why Nordhavn: Its seaworthiness, and my number one concern: safety.
- Why cruising: I just love being on the water, being able to see different places and travel. Being able to take my accommodations with me is nice.

Ann and Eric Bloomquist
Kiva
Nordhavn 40 #29

- Nautical miles cruised: 3,000 in one year.
- Cruising grounds: Southern California and the Sea of Cortez.
- Cruising plans: Mexican west coast to Ixtapa.
- Why Nordhavn: Comfort, dependability, safety.
- Why cruising: It's usually warmer than Minnesota. Adventure, freedom, family time. New places and people and on and on and on . . .



The Nordhavn 46 *Kanaloa* rests at anchor off Papua, New Guinea. Opposite: A sunset in San Blas Islands. photographed from the Nordhavn 46 *Miss Texas*.

Larry and Barbara Sutton
Sea Star
Nordhavn 40 #31

- Nautical miles cruised: 1,000 in first four months of ownership.
- Cruising grounds: Beaufort, N. C. to Newport, R.I.
- Cruising plans: South on Intracoastal Waterway to Florida Keys, Dry Tortugas, Bahamas.
- Why Nordhavn: Integrity and beauty of design; comfort in all the various living spaces; knowing that the Nordhavn family has adopted us and that they will quickly respond and support us in all situations.
- Why cruising: Viewing the world from the water, meeting other cruisers, entertaining our friends and family board the boat; sunny days; and the exquisite beauty of nature.

Harold E. Segraves
Cocamo
Nordhavn 40 #32

- Nautical miles cruised: Owned since March 2002.
- Cruising grounds: California to Ensenada, Mexico, and back.
- Cruising plans: Pacific Northwest, British Columbia, Alaska.
- Why Nordhavn: Everything. It is a very well-built boat and a lot of thought was put into its design. I can't think of any improvements I would recommend.
- Why cruising: The freedom, and places you get to experience.

John and Sue Spencer
Uno Mas
Nordhavn 40 #34

- Nautical miles cruised: 2,000 since March 2002.
- Cruising grounds: Southern California and north to the Pacific Northwest, then to Puget Sound and the San Juan Islands and Gulf Islands.
- Cruising plans: Alaska in summer 2003, northern British Columbia and west coast of Vancouver Island in 2004, Mexico in winter 2004.
- Why Nordhavn: Her rugged seaworthiness, which was tested on our first cruise up the Pacific Northwest in 16-foot seas with a breaking wave which rolled us over about 40 degrees and down the face at about a 15-degree angle, dumping three inches of water . . . into the engine room. No problem.
- Why cruising: The beauty of the Pacific Northwest; great, friendly people we have met; and the peacefulness of anchorages (but only after September.)

Cal and Nancy Massey
Hale Kai
Nordhavn 40 #35

- Nautical miles cruised: 2,000 over first eight months.
- Cruising grounds: Delivery from Dana Point, Calif., to Pacific Northwest, San Juan Islands, Gulf Islands, Desolation Sound, Inside Passage to north end of Vancouver Island and return.
- Cruising plans: Same area for next two years.
- Why Nordhavn: Solid, well-built boat, efficient, low maintenance, great company supporting owners after delivery. Wonderful people to have on your boating team.
- Why cruising: Freedom, peace.

Passagemaking on the Web

For more on voyaging the world with Nordhavn, or cruising closer to home, visit www.nordhavn.com and circumnavigatormag.com. If you're a Nordhavn owner who would like to be included in the Web edition of the roundup, please e-mail your information to circumnavigator@trawlerworld.com or write to CIRCUMNAVIGATOR, 3377 Bethel Road S.E. #107, Port Orchard, Washington 98366, Attention Nordhavn Roundup.

Unsinkable

Jim and Susy Sink were the first to circumnavigate the planet in an off-the-shelf production powerboat

By Milt Baker

Records are made to be broken, but pioneering passagemakers Jim and Susy Sink hold two that won't. Theirs was the first production powerboat to complete a circumnavigation of the world, and the first yacht, sail or power, to transit the Rhine-Main-Danube Canal between the Baltic and the Black Sea.

A third record set by the Sinks stood until it was recently smashed by the Nordhavn 40 Around the World trip: the smallest production motorboat to circumnavigate on its own tanks.

Jim and Susy's odyssey in their Nordhavn 46 *Salvation II* took five years, covered more than 50,000 nautical miles, and was completed in 1995. For their accomplishments they were named Trawler World Passagemakers of the Year in 1996.

When they left Dana Point, California, to begin their circumnavigation in 1990, Jim was 60 and Susy 57, and they had been married over 30 years. When they returned, Dana Point was their 528th port of call. They had cruised the waters of 52 countries and 33 U.S. states, and they were still happily married. "We had such pleasure, and such wonderful memories," Jim said.

Although they began their trip just over a dozen years ago, by today's standards the equipment aboard their boat was rudimentary. They began their trip with no GPS, no electronic charting, no satellite communications, no dedicated generator, no air conditioning, no television, no CD player–all taken for granted aboard small passagemaking motor yachts today. Yet by any measure the Sinks' circumnavigation was a huge success. And a delight for them personally.

Was it their sturdy Nordhavn 46 or was it the way they tackled their trip? "Both!" Jim Sink would be quick to tell you with his characteristic enthusiasm.

"It's the only boat I know that's so adaptable to all three modes, ocean crossing, coastal cruising, and inland cruising," Jim said, noting their ambitious voyage plans included large doses of all three. But it's also clear that Jim and Susy followed their own counsel: "Plan carefully, act carefully, and proceed vigorously."

The best way to gain seagoing experience is little by little, advised Jim. Start with day cruises to get the fundamentals down, then try a night cruise or two—preferably on a clear night with a full moon. Once you have that down, move to an overnight cruise. "This is the buoy-to-buoy concept," he said. "You don't often see the next buoy until you reach the one just ahead of you. And when you get there, you say, ahhhh . . . there's the next one." And it all comes into focus.

Jim and Susy were committed to taking the time to build the skills they knew they would need. Thanks to Jim's experience as a Navy pilot, their

A Nordhavn 46 sistership escorts *Salvation II* into Dana Point to end its pioneering circumnavigation. Opposite: Jim and Susy Sink today.

Photo: David J. Shuler

Salvation II's Circumnavigation

- Start: June 28, 1990, at Dana Point, California
- Finish: October. 3, 1995, at Dana Point, California
- Direction: West to East via the Panama and Suez canals
- Countries visited: 51 (+ 33 U.S. states and District of Columbia)
- Nautical miles traveled: 50,446
- Engine hours run: 7,761
- Fuel burned: 18,476 gallons
- Average speed: 6.5 knots
- Average fuel burn: 2.38 gallons per hour
- Average mileage: 2.73 nautical miles per gallon

first year with *Salvation II* reads like a Navy training syllabus: Launching, commissioning, sea trials in California, delivery to Oregon, crew training in San Juan Islands, maiden voyage via the Inland Passage to Alaska, Pacific coast south to Panama, cruise Caribbean, Yucatan coast, Gulf of Mexico to homeport in Houston.

The worst weather they ever encountered came early on one of California's offshore bars known for kicking up riotous seas. "We had never been into Eureka," Susy said. "We called the Coast Guard and asked them about the conditions of the bar, and they asked if we would like to have an escort. But they couldn't come out right away, so for an hour or so we did a racetrack course around the entrance buoy. And the weather got worse and worse and worse. That, for me, was kind of scary."

"That was our indoctrination . . . our shakedown cruise, and we were holding on to the wheelhouse table to keep from getting thrown around," said Jim. "It was a pretty serious indoctrination, especially for Susy."

"I'm sure it wouldn't affect us now," she said. "But I thought at the time, 'My God, why am I doing this? Is this fun?' "

But plentiful good weather more than offset the occasional bad, Jim pointed out, and one of the advantages of a powerboat is that it can go where there is no wind. "We had an unbelievably benign crossing of the North Atlantic," Jim recalled. "It was the latter part of May, and the Azores high was doing its thing. The middle of the North Atlantic between Bermuda and the Azores was like a mill pond. We stopped and went swimming in the middle of the ocean."

In late spring and summer, a high pressure system known as the Azores high typically brings calm, settled weather to the waters between Bermuda and the Azores. Trawler yacht skippers like Jim often plan passages right through the high pressure to take advantage of the good weather. One lesson Jim and Susy learned early was to talk to cruisers who had recently been where they were headed. It was a lesson that paid dividends around the world—it always brought them useful information. Jim reported that he often exchanged charts and cruising guides with other skippers, while comparing notes with them on where to go and what to avoid.

"There's no question our favorite place was Turkey because it has a large community of most all liveaboards," said Jim. "About half of them were Americans, and all of them without exception were English-speakers, and we got not only a great boating community but we all loved the Turkish people."

What are the Sinks up to now?

They still own *Salvation II* and use her as their summer home. She's based in Friday Harbor, Washington, and Jim and Susy still love summer cruising in the Pacific Northwest.

"We don't know what we're going to do in the future," said Jim. "We are thinking a lot about this because boating is so interwoven into our lifestyle."

Does that mean the Sinks would not rule out another circumnavigation?

"That," Jim said with a chuckle, "will be the first question I ask my next wife."

To which Susy responded with a smile: "It's going to have to be the next wife. One circumnavigation is enough for me!"

Ghanim Al-Othman waves from *Othmani* at Dana Point, half way in his circumnavigation.

Photo: James F. Leishman

Doing it his way

Inexperience can't scuttle plucky Kuwaiti skipper's trip

By Joe Hvilivitzky

If Ghanim Al-Othman were searching for a movie title to best describe his circumnavigation, Against All Odds would likely fill the bill.

He overcame relative inexperience, mechanical breakdown, injury and perilous weather to become the first Arab to circumnavigate the world in a privately-owned powerboat under 100 feet. In doing so the Kuwaiti demonstrated that determination can sometimes make up for superior planning and slick seamanship.

In his beloved *Othmani*, a Nordhavn 46, Ghamin realized a dream he'd harbored since age 14—a dream inspired by his namesake grandfather, who had been a noted ship captain.

Ghanim and his crew, friend Mohammed Haider and mechanic Jawad Maaroof, set off January 25, 1998, on a cold, rainy night. Although the first six weeks were uneventful, they were met with the first of many challenges when, off Thailand, there was a fire in the engine room. Next, they ran out of water while at sea.

Misfortune continued in April when an unexpected low tide left *Othmani* grounded and with some hull damage. After repairs in Singapore, they made it to Palau where Ghanim sliced a leg on a coral reef, causing severe bleeding, swelling, and eventually infection.

But the worst was yet to come. Near Kosrae, in Micronesia, they encountered high winds and what Ghanim recalls as the most frightening experience of the trip. "I saw the sea go flat like a football field and then all of a sudden I saw this huge wave come and hit our boat," he says. "It was 50 feet, a rogue wave. I was lucky to hit only one, usually they go two or three together."

At another point, the autopilot conked out, the victim of over-heating. With advice radioed from Pacific Asian Enterprises, Ghanim made the necessary repairs and then put in for new parts. Undaunted, the trio took some time off in Honolulu before continuing on, arriving August 28 at Dana Point, California, to mark the end of a tumultuous first half of the circumnavigation.

In hindsight, Ghanim acknowledges not having given sufficient attention to the weather in planning the trip. Early on in the Pacific leg, however, Jim Leishman of PAE put him in touch with Omni Marine, a weather routing service in Seattle. "I have a good boat, but anyone who goes around the world should search for a good weather forecaster," advises Ghanim.

Resuming the voyage after a three-month hiatus, Ghanim encountered more bad weather as winter storms dogged *Othmani* much of the way south to the Panama Canal. He made stops in Cuba and Miami and rested again, from February until May, waiting for the Atlantic to calm down. Now with only one crew member, Jawad, he refueled in Bermuda and set off for the Azores. Twelve days later, on May 21, they were in Horta, but not before a final bout of high wind and rain. But from there on in it was leisurely going until a triumphant return home on September 29.

Ghanim shot video of his voyage, providing a perfect segue to his latest passion—making video documentaries. Among them is a one-hour testament to his incredible journey, appropriately titled Othmani Around the World, which was shown on Kuwaiti television. Although *Othmani* is listed for sale with a Fort Lauderdale brokerage, Ghanim, now 36, uses her to travel to destinations to videotape subjects for his shows.

His dream realized, Ghanim shuns any suggestion his trip was some form of self-promotion. "It's too dangerous for that," he says. "Rather, I am a proud Kuwaiti and I felt I wanted it as a tribute to our forefathers who sailed the grand seas in search of livelihood. I want the trip to be a torch for all Kuwaiti youth and the new generation. A message: seek adventure and ride the seas." ◘

Othmani's Circumnavigation

- Start: January 25, 1998, at Kuwait City, Kuwait
- Finish: September 29, 1999, at Kuwait City, Kuwait
- Direction: West to East via Panama and Suez canals
- Countries visited: 40
- Number of ports: More than 50
- Nautical miles traveled: About 34,700

Round 3

Love of life at sea starts this atypical cruising couple on a third trip around the globe

By Milt Baker

Photo: David J. Shuler

Well-traveled Heidi and Wolfgang Hass aboard their Nordhavn 46 *Kanaloa.*

Heidi and Wolfgang Hass, captain and mate of the Nordhavn 46 *Kanaloa*, are not your typical cruising couple.

– They've voyaged the world full time for the past 20 years.

– Together they've completed two west-about circumnavigations, the first under sail and the second under power. And they are just beginning circumnavigation number three.

– Aboard their Nordhavn, Heidi is captain, navigator and cook, while Wolfgang is chief engineer, deckhand and first officer. He also bakes the bread and makes the sauerkraut.

– Heidi and Wolfgang try to avoid big cities and yachting ports, preferring instead to venture off the beaten path to tropical third world stops. Among their favorite destinations: New Caledonia, Borneo, Vanuatu, Papua-New Guinea, Indonesia, and the Seychelles, where they spend months at a time.

Unlike many couples who begin passagemaking late in life, the Hasses were bitten early by the cruising bug. It was 1982 when they departed Hamburg, Germany, in a 38-foot steel sailing yacht. Wolfgang was 43 and Heidi 32. And they never looked back. Their first circumnavigation was a leisurely one of almost 15 years. When it was done, the Hasses gave in to Wolfgang's urge to buy a Nordhavn. "You know," he said, "sailors feel they should never run the engine. Now I am glad that I am not in conflict anymore—this is the perfect boat for us."

Kanaloa flies the German flag, but the Hasses are citizens of the world—far more at home crossing oceans than shoehorned into an urban marina.

"I am the only (navigator) who went from the Borneo to South Africa without any wind whatsoever and the currents with me," said Heidi, taking obvious pride in her ability as a navigator.

Why are the Hasses still voyaging the world?

"It's so beautiful out there on the ocean," enthused Heidi. "It smells so good, it's so clean, there's always something going on, every day is different. And you meet so many people.

"The ocean is never frightening to us, and I wish people would look at it from a different perspective," Heidi said, Wolfgang nodding agreement. "We have never been afraid of the ocean, and I think it's just beautiful . . . and these Nordhavns are so safe. The boats can handle much, much more than a person can."

Visiting tropical islands and villages off the beaten path, Heidi said, "We just arrive and stay as long as we want. No schedule. We may stay for six or eight weeks. The locals have to get used to us. When you only stay a week you don't meet anyone, you don't see anything. You have to settle down and they have to get accustomed to you."

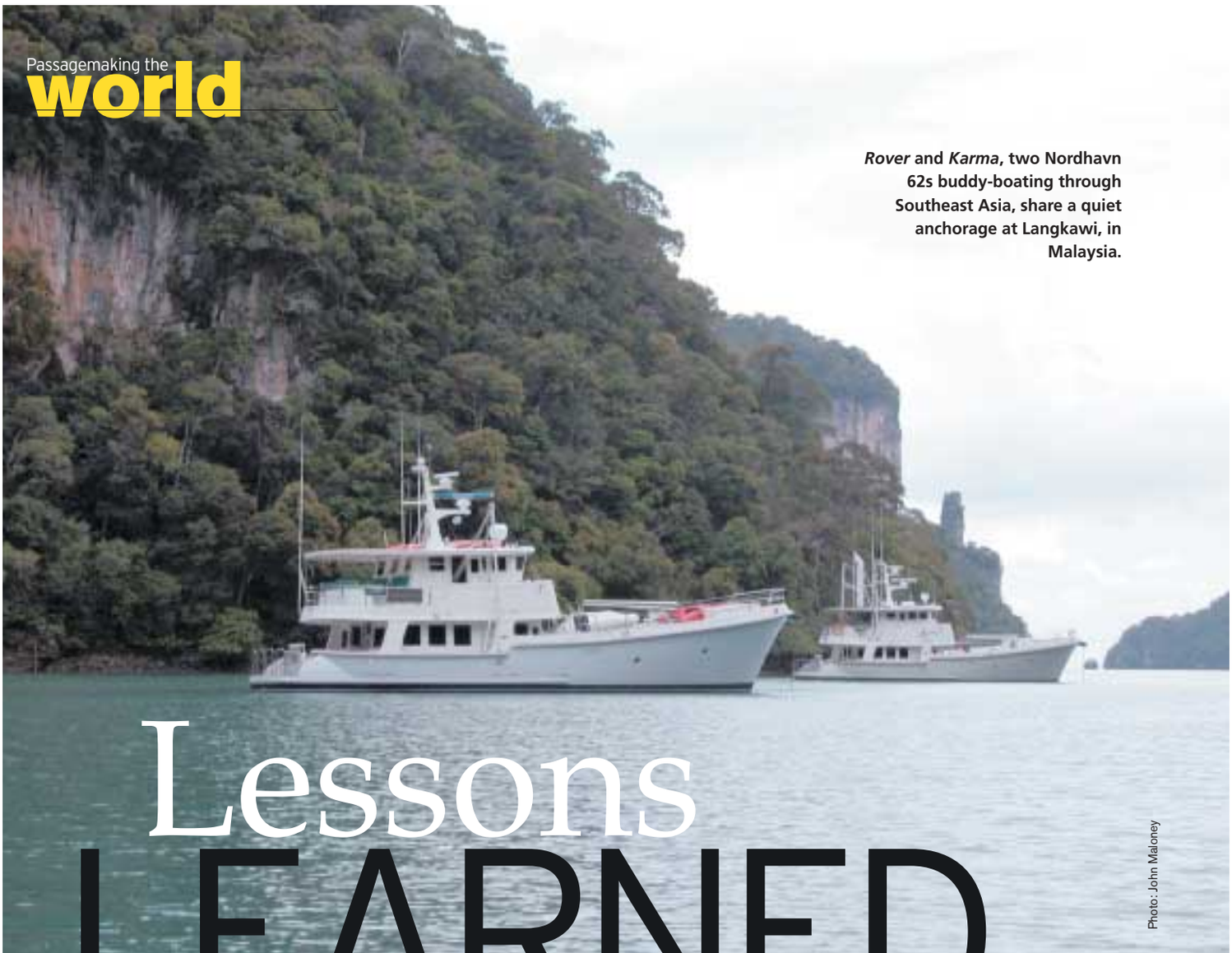
The Hasses always try to leave something useful behind in the villages they visit. In one village in Papua, New Guinea, it was 85 pairs of used eyeglasses they had asked their Berlin yacht club to collect, and the spectacles proved a great hit with nearsighted and farsighted villagers alike. In another, they helped residents repair a water catchment system which was leaking more water than it was saving. "They appreciate our help so much," Wolfgang said. "And they use everything, even plastic bottles we throw away."

What is striking about the Hasses is how comfortable they are in the third world and on the ocean, and how little they rely on conveniences often taken for granted. *Kanaloa* has no air conditioning, no generator, no bow thruster, no satellite phone, and no insurance. "We don't need these things," explained Heidi. "They make our lives too complicated."

As Heidi and Wolfgang begin a third circumnavigation, they've taken aboard a new crew member to share their love of ocean travel—a Norfolk terrier puppy named Zulu.

Kanaloa's Circumnavigation

- Start: October 6, 1996, at Dana Point, California
- Finish: November. 13, 2002, at Dana Point, California
- Direction: East to West via Cape of Good Hope and Panama Canal
- Countries visited: 33
- Nautical miles traveled: 35,061
- Engine hours run: 5,4333
- Fuel burned: 12,000 gallons approx.
- Average speed: 7-7.5 knots
- Average fuel burn: 2.3 gallons per hour
- Average mileage: 3.0 nautical miles per gallon



***Rover* and *Karma*, two Nordhavn 62s buddy-boating through Southeast Asia, share a quiet anchorage at Langkawi, in Malaysia.**

Photo: John Maloney

Lessons LEARNED

Talk to Nordhavn owners voyaging the world and you are sure to come away with two strong impressions: the breadth of their cruising experience and the depth of their affection and respect for their boats

What are the most important lessons learned by passagemakers who have cruised extensively beyond U.S. waters?

We asked the owners of nine Nordhavns–three 62s, one 57 and five 46s–including two 46s that have circumnavigated the world. Together, these boats and their crews represent more than 200,000 nautical miles of voyaging in Nordhavns. Their lessons learned are eye opening.

What do you enjoy most about cruising?

John Maloney of the Nordhavn 62 *Rover* spoke for many owners:

"I like the challenge: of preparation, laying out the proper course, making sure that everything is ready—fuel systems, charts, etc. Managing the risk.

"I like the adventure: visiting remote areas and meeting

By Milt Baker

the local people. Getting the feel of the areas visited and learning their customs. The camaraderie of other sailors at anchorages.

"The anticipation: What will you find at the end of the passage?

"And, finally, the joy of accomplishment, when arriving successfully at your destination."

"Cruising is a lifestyle, not a vacation," said John's wife, Gail. "Daily routines can have the same ups and downs, boredom and stress as on land, but the overall big picture is astonishing in places seen, people met on land and water, and the satisfaction (and surprise) of accomplishing such a great deal just by continuing to leave the dock."

To Janet McClintock and John Imle of the Nordhavn 57 *Bagan*, "The most enjoyable part of South Pacific cruising is that we can spend half the year enjoying the pleasures of the tropics—warm, gentle people, picture-postcard beaches and fantastic diving. The other half of the year, when we retreat from the cyclone belt, we find a berth in the middle of a down-under town like Auckland or Sydney and savor sophisticated city living."

"Seeing new places while having our home with us, meeting new people, the challenge of navigating in new areas, and being able to experience first-hand the beauty of this planet," said Dave and Sally Chambers of *Sally G*, a Nordhavn 46.

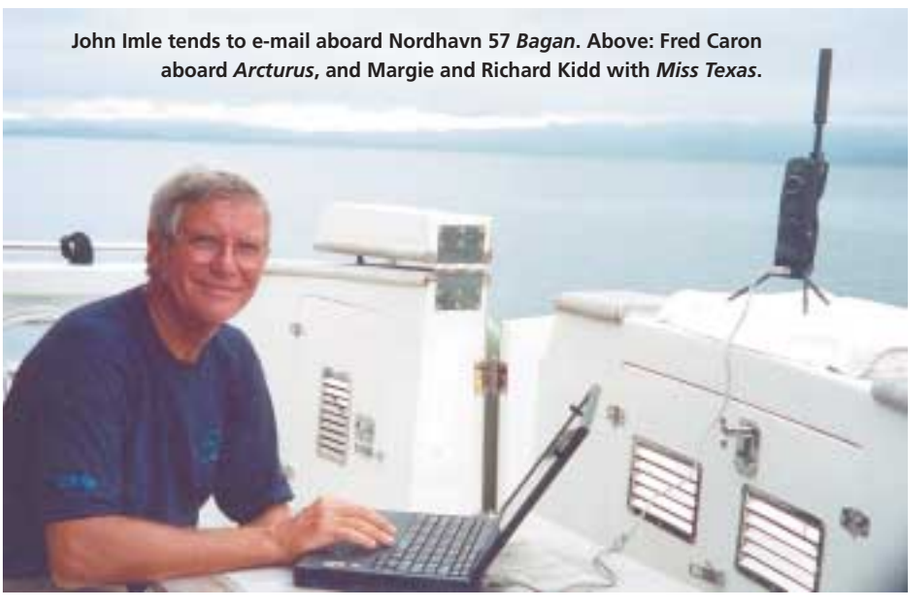
"The heart of cruising for us is arriving at very out-of-the-way places, getting acquainted with the locals, seeing the sights and how others live," said Fred Caron of *Arcturus*, another Nordhavn 46.

What about the challenges of running a boat with so many complex systems?

"I'm an ex-computer programmer. On a scale of 1 to 10 of mechanical ability, I'd rate myself (generously) a zero," said Ken Williams. "We run the boat ourselves, so there is no one but my wife and I to rely on. I've been learning the mechanical systems on the boat the hard way—one breakdown at a time."

"It's a real challenge running a vessel of this type," said Fred Caron, skipper and owner of *Arcturus*, a Nordhavn 46. "We make fresh water as we need and we generate our own electricity; we have several radio stations, a sewer system, two propulsion systems, which require fuel, filters and, from time to time, fresh oil. In tanks we can carry over 7,000 pounds of fuel and 2,400 pounds of water. We also have a myriad of pipes, hoses, fittings, ports, hatches, vents, miles of wire, countless fuses and an electronics array in the pilothouse that would have stunned the skipper of a supertanker just 20 years ago. Considering the constant dampness, exposure to salt water, the movement of the sea and changes in temperature, it's understandable that things can break, come undone or just get out of adjustment. I have found that staying up-to-date in each of these important areas to be enjoyable and at times challenging. We have many entertaining stories to tell about on-the-job training."

"I am not a mechanical person, and I was alarmed when I was given a list of spare parts to have on board," said John Maloney. "It seemed like I was taking along the innards of another whole boat. When advised to get one of Sears' large tool packages, I thought I would never use them. Well, we have become well acquainted. But no matter how many spares you take, there will be something you will need but don't have. You need to have good support backup at home, from the boatbuilder, the electronics installer, and contacts at your major electronic and mechanical component companies. How do you learn? You learn. Read the manuals and don't be afraid to send an e-mail



John Imle tends to e-mail aboard Nordhavn 57 *Bagan*. Above: Fred Caron aboard *Arcturus*, and Margie and Richard Kidd with *Miss Texas*.

Spectacular Glacier Bay as seen from Nordhavn 46 *Salvation II* during its maiden voyage to Southeast Alaska.

Photo: Jim Sink

and show your ignorance."

"It's important to perform your own preventive maintenance to acquaint yourself with your boat's systems," according to John Imle. "And work with and watch mechanics doing the more sophisticated work. It is also important to establish relationships with the suppliers of major mechanical equipment, such as engines and stabilizers. Thanks to today's satellite phone and e-mail communication systems, it is possible to get top-quality diagnostic assistance usually within hours, sometimes even faster than that."

"We have had no serious mechanical problems," said Bill Smith of the Nordhavn 62 *Autumn Wind*. "I am familiar with the systems, but I've gotten hands-on knowledge one system at a time—tracing problems and learning the system as I go."

How do you keep in touch with family and friends?

"E-mail. We have Inmarsat C onboard and can use it anywhere, anytime. A great system! We use e-mail on shore when we're there," said Richard and Margie Kidd.

"We have a Mini-M system that provides slow Internet access. When we're close enough to shore, I use my cellphone and get the blindingly fast rate of 9.6k (about 5 times slower than a modem). I'm just in the process of installing the Fleet 77 system for Internet access. This is an always-on system which is expensive but should solve all my weather information needs," Ken Williams said. "I hope!"

"E-mail is our primary means of communication with occasional satellite phone call to family," said John Maloney. Although he began with a single-sideband based system, "I now have an Iridium phone," he said, "and with proper servers and software, I can send multiple e-mails in less than a minute. Iridium phone calls are the cheapest of any satphone, and (Iridium service) is available worldwide."

John Imle and Janet McClintock agree. "Cruising the remote South Pacific, we communicate primarily by e-mail and secondly by voice. We find Iridium satellite phone the best for both. For anyone considering Iridium, we recommend investing in a docking station and a fixed external antenna."

Wolfgang and Heidi Hass take a different approach. They call home only when they happen to be near a phone, and they decline to use a satellite telephone or satellite e-mail, preferring instead to be out of touch for long periods of time.

How do you watch the weather? What was the worst weather you encountered?

"I like going into the weather offices and getting good hard briefs before leaving, then following up with weather fax," said Jim Sink, who circumnavigated with his wife Susy aboard their Nordhavn 46. "We never had any weather damage or storm damage, though we once took some green water over the wheelhouse roof and it cracked the reflector lens in our searchlight." The highest seas he and Susy experienced on their five-year circumnavigation were about 30 feet.

"We watch weather using weather routers for long passages, weatherfax, Nobeltec weather downloads, cruiser nets on VHF and HF radio, and national weather forecasts on HF and ham maritime nets," said John Imle and Janet McClintock. "The worst we've seen in 21,000 miles of Pacific cruising is 40-knot winds and 15-20 foot seas—on two occasions. In neither case were we in a storm. These were just what is called 'enhanced tradewinds.' "

"On the first occasion—from Bora Bora to Cook Islands—we had following seas," they said. "Rough conditions were complicated by having to respond to a Mayday, requiring us to circle a disabled sailboat all night. Not life threatening, but very uncomfortable."

"On the second occasion—leaving Vanuatu for New Caledonia—we had waited days for weather to lie down and we got impatient," they said. "Our first mistake!

"True, conditions were improving," they continued, "but by the time we cleared the harbor, we were encountering 20-foot head seas. No fun. But neither of us wanted to be the first to call it quits. Pride: the second mistake. Finally, after two hours of bashing—and the expectation of another 48 hours of the same ahead of us—we agreed to turn around and return to port. What a lovely luxury, to have the option of turning back!"

"You should not be afraid to turn around," Heidi Hass agreed emphatically. "We did that twice, and each time we turned around and came

Passagemakers

Jim and Susy Sink
Salvation II
Nordhavn 46 #10

- Miles cruised: 50,000+
- Where cruised: East-about circumnavigation, Dana Point to Dana Point via Panama, the U.S. Eastern Seaboard, Great Loop, North Atlantic, North Sea, Baltic Sea, Kiel Canal, Rhine-Main-Danube Canal, Black Sea, Mediterranean Sea, Corinth Canal, Suez Canal, Red Sea, Arabian Sea, Indian Ocean, and North Pacific.
- What's next: Still deciding.

Fred and Chris Caron
Arcturus
Nordhavn 46 #16

- Miles cruised: 15,000
- Where cruised: Alaska to Mexico, South Pacific to New Zealand.
- What's next: New Zealand, South Island Stewart Island, Tasman Sea to Tasmania, Australia.

Dave and Sally Chambers
Sally G
Nordhavn 46 #36

- Miles cruised: 25,000+
- Where cruised: Alaska to Panama, Bahamas, U.S East Coast; Canadian Maritimes and Newfoundland; Eastern and Western Caribbean, Western Mediterranean to of England; Ireland and Scotland.
- What's next: the Caledonian Canal, Orkney & Shetland Is., Norway, Sweden, Finland and Denmark.

Heidi and Wolfgang Hass
Kanaloa
Nordhavn 46 #48

- Miles cruised: 35,000 (plus a 15-year circumnavigation under sail)
- Where cruised: West-about circumnavigation, Dana Point to Dana Point, via Mexico, the South Pacific, Indian Ocean, Cape of Good Hope, South Atlantic and North Atlantic, Caribbean Sea, Panama.
- What's next: Back to the South Pacific to begin a third circumnavigation.

Richard and Margie Kidd
Miss Texas
Nordhavn 46 #57

- Miles cruised: 24,000
- Where cruised: Alaska to Panama, Caribbean, North Atlantic to Mediterranean, France, England, to Newport, Rhode Island.
- What's next: Accepted an offer on the boat and are building a new home beside a lake in Texas.

John Imle and Janet McClintock
Bagan
Nordhavn 57 #10

- Miles cruised: 21,500
- Where cruised: Alaska to Mexico, South Pacific to New Zealand and Australia.
- What's next: Probably eastern Australia, Great Barrier Reef; possibly to the Louisiade Archipelago in Papua-New Guinea and back to New Caledonia, Vanuatu and Fiji.

Ken and Roberta Williams
Sans Souci
Nordhavn 62 #9

- Miles cruised: 3,000
- Where cruised: Pacific Northwest, Mediterranean.
- What's next: This summer, cruising around Corsica and the western coast of Italy. Summer 2004, have a captain and crew deliver the boat to Athens, then cruise the Greek Islands.

John and Gail Maloney
Rover
Nordhavn 62 #18

- Miles cruised: 15,000 (plus another 20,000 in their Nordhavn 46 hull #47)
- Where cruised: Alaska to Mexico, Western Caribbean, Eastern Seaboard to Nova Scotia (in our Nordhavn 46). Dana Point to South Pacific, New Zealand, Australia, Malaysia, Thailand and the Andaman Sea (in our Nordhavn 62).
- What's next: Indian Ocean, Sri Lanka, India, Oman, Red Sea, Eritrea, Sudan, Egypt, and Turkey.

Bill and Arline Smith
Autumn Wind
Nordhavn 62 #19

- Miles cruised: 20,000 (plus 45,000 in another boat)
- Where cruised: Alaska to Mexico to South Pacific, (boat shipped to East Coast) Chesapeake
- What's next: U.S. Eastern Seaboard, Caribbean, possibly Europe.

Dream Destinations

The Cook Islands, especially Suwarrow, make an unforgettable impression on passagemakers in the South Pacific

Surprisingly, three of the nine couples cited Suwarrow, a remote atoll 1,000 miles from Tahiti, as the epitome of their cruising experience. Here's what Janet McClintock and John Imle had to say:

"Everyone dreams of a Robinson Crusoe island; we visited one in the South Pacific that meets the description: Suwarrow in the northern Cook Islands. Accessible only by private boat, Suwarrow is a picture postcard of palm trees, white beaches and bountiful sea life. It's an uninhabited island except for two seasonal caretakers. Instead of stamping your passport, they greet you with a cool, sweet green coconut. They graciously invite transient yachties to share the delights of this out-of-the-way paradise.

"We spent our days snorkeling the pristine waters, trying to convince a fleet of reef sharks to keep their distance. The sea is so full, fishermen find it hard to leave. Some days the caretakers organize the yachties for cleanup projects of parts of the atoll, where we visit remote rookeries and chase coconut crabs while we collect beach litter. Most evenings everyone meets under the tall palms for fresh-caught mahi-mahi cooked native style on palm leaves over an open fire. Everybody brings a contribution to the feast, and we cap off the evening with an impromptu musicale under the stars. Does life get better than this?"

Together with circumnavigators Heidi and Wolfgang Hass of the Nordhavn 46 Kanaloa, John and Gail Maloney confirmed the Robinson Crusoe feel of Suwarrow, the warm camaraderie with caretakers and other yachties, and the terrific fishing.

"Two areas seemed to offer more than any others," said Richard Kidd of the Nordhavn 46 Miss Texas. "One was the San Blas Islands off the coast of Panama and the other was Turkey. The scenes in the San Blas—pure white mounds of sand rising out of clear blue water with maybe two or three palm trees and a hut or two onshore, combined with the native Indians who got into their dugout canoes and came out to our boat with their handmade molas (cloth pictures) for sale . . . truly great. On the southern coast of Turkey, we found friendly people, fantastic Roman ruins, beautiful textiles, interesting cities and great marinas. We would go back in a heartbeat."

"Borneo is beautiful . . . one of the nicest areas in the whole of Asia," Heidi Hass recounted. "So interesting because it has everything you can imagine . . . incredible wildlife, all those huge caves—some of the biggest in the world. We took Kanaloa about eight miles up the river to see the orangutans, then we took the dinghy even farther up. The orangutans were all over in the trees. They were wonderful."

"For us the best part of boating is fixing dinner at anchor," Ken and Roberta Williams of Sans Souci, a Nordhavn 62, wrote. "There is no experience that beats dropping anchor in a quiet cove or an island in the Mediterranean, swimming all afternoon and then having dinner (with a great bottle of wine) on the back deck of the boat."

back to port, it was perfect. Other boats went on, and they had terrible trips . . . they had to heave to, some of them had damage, and we overtook them and arrived before them. We have no problem with turning around—it has nothing to do with bad seamanship."

"We get weather four times a day via our Inmarsat-C system for free, and that's our main source for weather," said Richard and Margie Kidd. "We had only a couple of times in the last four years of truly bad weather. If the weather was forecast to be bad, we just stayed where we were. We've seen water come over the bow only once. We just kept going because we never felt unsafe in the Nordhavn."

Was there ever an occasion when you needed a wing engine?

"Last summer, when we were crossing the Gulf de Lyon in France, a crossing of about 200 miles, our main engine died about 50 miles from shore," Ken Williams said. "Luckily, the Nordhavns have a backup engine. Unfortunately, the backup engine doesn't move the boat too fast—about 3 miles per hour . . . It was not a fun night, but we made it to Toulon just fine, found a diesel mechanic and were on our way, on the main engine, in just a couple of hours."

"There were three instances, all quite different, that justified having that wing engine," said Jim Sink. Without warning *Salvation II*'s transmission refused to move the boat on the first occasion, a component of its exhaust system failed, rendering the main engine unusable on the second, and *Salvation II*'s main propeller was disabled when it became badly tangled in a heavy fish net on the third.

"I am a serious believer in the wing engine, and the point is that you need a backup total power train," Sink said, "I would not go for belting to the main shaft. I like to have a totally separate power train."

"Just one occasion," reported Bill Smith. "We threw a belt off the engine

and had to shut down, so we just turned on the wing engine while we made repairs. We use our wing engine to run the boat's hydraulics, so it's in good repair and always runs."

"We've never had to use the wing engine because of main engine failure," John Imle and Janet McClintock wrote. "However, we did have to switch to the wing engine briefly once because of operator-error fuel starvation to the main engine. Our wing engine was challenged to maintain course in any but the best of conditions. We later upgraded our auxiliary (wing) drive train with a three-blade feathering Max Prop and added a bearing to the shaft. It now runs smoothly, and the three-bladed prop will be more efficient than the standard two-blade folding prop. We now feel better about our ability to maintain a course and some forward momentum. Speed through the water now is 5.5 to 6 knots in still water at 2,200 rpm. Before the prop change it was below 5 knots."

Is there piece of gear you've found absolutely indispensable and would recommend to others?

"Paravanes," said Heidi Hass, "are the best of the best for reducing rolling at anchor." Heidi also noted that running offshore the noise and bubbles from the paravanes attract fish, so the fishing is nearly always good when *Kanaloa* is under way.

"In Europe, you must have a passarelle," said Ken Williams. "In the U.S., no one has ever heard of one, but in Europe, you can't go into almost any port without one." Med-mooring, with an anchor off the bow and the boat's stern to the dock, is the standard method for putting a yacht into a Mediterranean marina. A passarelle—essentially a long gangplank often supported by the boat's rigging—makes getting ashore possible while a boat is Med-moored.

"We put on a step-down transformer in anticipation of our trip to Europe, and you can't get along without one," Jim Sink said. "Everything on the boat is 60 cycles, but we could use the transformer for the battery charger and heaters. The only thing we could not use it for was motors, so we ran the refrigerator on DC instead of AC power. And I don't think we missed anything."

"Next to computer charts," John Imle said, "radar is our most important navigational tool for collision avoidance and distance off. Two items of loose gear we would not do without, for both visual navigation and collision avoidance, are image-stabilizing binoculars and night-vision binoculars."

"Our best engine room piece of gear?" asks John Imle. "An infra red temperature gun. With this little jewel (about $250), I can measure the temperature of any part on the engine (and shaft log, bearings, pumps, etc.) with a point-and-trigger pull. I've marked up all the vital parts with the normal temperature range at various engine speeds. Now I can check everything against the norms."

"The single piece of equipment would be the GPS, especially when integrated with electronic charting," wrote John Maloney. "I have a Furuno black box radar with ARPA (advanced radar plotting aid). It was fantastic cruising at night through Indonesian waters and Singapore Strait, when there were at least 20 targets on the scope, all going in different directions and at different speeds." ARPA radar provides range, bearing, predicted closest point of approach, and time of closest point of approach for each target. Gail Maloney agrees: "The Furuno black box radar with ARPA gets my vote."

What do you like most about your Nordhavn"

"Both our Nordhavns (a 46 and now a 62) have been superb passagemakers, with good stability and sea-keeping characteristics," said John Maloney. "The best thing about Nordhavn boats is the support from the company."

What else does John like about his 62?

"The maneuverability in close quarters with powerful bow and stern thrusters; the cabin layout under the foredeck with overhead hatches for light and ventilation, plenty of storage. The back upper deck for meals and gathering, a delightful place while under way in good weather; paravanes to dampen the roll from swells at anchor; air conditioning to cool the boat at night in the hot, humid weather of the South Pacific."

"Both our Nordhavns (a 46 and now a 62) have been superb passagemakers with good stability and sea-keeping characteristics. The best thing about Nordhavn boats is the support from the company."

"We enjoy the safe and secure feeling we have as we cruise the deep blue waters of the world in *Autumn Wind*," reported Bill Smith. "We love talking to people interested in this boat—we draw a crowd wherever we go!"

Something John Imle and Janet McClintock especially like is that their Nordhavn 57 can be easily operated by a couple, noting that they take crew along only for long ocean passages. They also report that "Nordhavn's robust design and reliable systems give us the confidence to cross oceans and cruise remote locations."

"The boat is very safe in high seas, and it has never given us any insecure feeling," said Heidi Hass. "These Nordhavns handle so well, we have never even needed a bow-thruster."

"Nordhavn works in all conditions," said Richard and Margie Kidd.

Out there, and loving it

We have explored places few have visited; we have anchored in the homes of sea lions, whales and dolphins; and we have watched the sun set and rise countless times.

By Fred Caron
Illustration by Marta Lynne Scythes

The temperature is 78 degrees; the vast South Pacific is flat with only a slight ripple to distinguish it from glass. Gazing backwards, our wake stretches for miles into early morning grays like the white trail of a jetliner 40,000 feet above. We are a solitary mark upon the sea. The sky has begun to turn; dawn is coming. I relieved Chris an hour ago, and now she sleeps.

We are 173 miles northeast of Tahiti and all is well. As the automatic pilot steers us, I pour my second cup. I have made the morning rounds and *Arcturus* seems secure, no apparent leaks, and our trusty main engine turns smoothly at 1,300 rpm. Each valve in the engine room is set to its proper position. Nothing seems out of place, no strange noises or unusual smells.

My mind drifts back to 1995. Chris and I each owned small businesses and worked hard most days, going in early and staying late, often working weekends. I was a mature Type A personality working within my chosen field; a comfortable and secure life. We liked our jobs and earned a good income in the process. Life was better than good, not perfect mind you, but really good, and it went on like that for years. Oh, there were days when the rut seemed to get deeper, days when we felt rooted in an insignificant, unchanging and mundane world, but those days passed, the sun always rose.

Now, from the pilothouse, it appears this will be another beautiful day. In the time it took to write these words, the sky has brightened along the seam where water meets sky. A faint blue line has appeared, and now it is broadening and beginning to turn pink.

How did this all begin? I recall browsing through a boating magazine and skimming a small ad touting the virtues of a long-range trawler. Weeks later it came back to mind, and I searched for hours trying to find that ad. One of life's elusive possibilities was taking hold and slowly evolving into an idea. At first I thought the idea seemed more evolutionary than revolutionary but, as it

turned out, it was revolutionary—in fact it was the most revolutionary idea my mind had ever embraced. Eventually our hearts and souls would embrace it too.

Our lives began to change. We attended West Marine Trawler Fest and the big boat shows, called for information about boats, talked with builders, read magazines and books. In time our lives would change forever. We were too young to retire but we weren't too young for a sabbatical. We could make time for the sea and then return to work if need be. As days turned to weeks and weeks to months, the material things we had worked so hard to acquire over so many years took on new significance. Those things were now holding us back, obstructing us from our future, hindering us from achieving our new goals. Almost everything would have to go; that was a high hurdle, but not an insurmountable one.

In December 1999—15,000 nautical miles ago—we moved aboard *Arcturus*. Since then our "ATV of the sea" has transported us to more cities, towns, villages and out-of-the-way places than we could have possibly imagined. We have explored places few have visited; we have anchored in the homes of sea lions, whales and dolphins; and we have watched the sun set and rise countless times.

In the east this morning, the sky is beginning to burn—oranges and pinks, reds, purples with slivers of silver and gold. If these sky-bursting beams of brilliance were sound, this display would flatten the earth. But this is silent light, the silent light of a new day.

You are witnessing the movement of time aboard an all-but-insignificant vessel manned by two rather ordinary people and a dog, in a seemingly limitless ocean. There is not a blip on the radar screen, not even a squall. Still. Nothing at all. We are peacefully alone because this is the way we want to be—the motor vessel *Arcturus*, Chris, Dusty and me. A dog that goes to sea, you say? Ah, yes, but Dusty's stories are for another day. ◘

Fred Caron and his wife, Chris, have reached New Zealand with Arcturus*, their Nordhavn 46, with which they plan to circumnavigate the planet in a leisurely fashion.*

First one around

The first person to circumnavigate the world in a trawler yacht was Eilco Kasemier of Holland, a retired hotel owner who took *Bylgia II* around in 1983-84.

There were no production passagemakers on the market then, so Kasemier, after he completed a circumnavigation under sail, turned to Dutch naval architect Dick Koopmans for a custom design in aluminum.

The resulting 39-footer was designed to be self-righting, but that feature was never tested during the east-to-west circumnavigation out of Plymouth, England. *Bylgia II* was powered by a four-cylinder Perkins 236 and carried 942 gallons of diesel fuel. Although custom, *Bylgia II* was a fairly normal trawler yacht, albeit in the North Sea tradition of carrying accommodations below deck.

Kasemier was in a hurry, as he wanted to circumnavigate in 200 days or less, so he often ran into snotty weather and head seas. He averaged close to 7 knots and his tour took 198 days, 23 hours and 30 minutes. Fuel burn was about 1.5 gallons per hour. His longest passage was a 20-day run from Acapulco to Honolulu.

Long ocean passages Kasemier tackled singlehanded while carrying one crew the rest of the voyage, that crew changing from leg to leg.

Kasemier's circumnavigation stands as the quickest by a recreational powerboat operated by its owner, and the smallest such yacht to go around. The Nordhavn 40 that circumnavigated in 2001-02 was 8.5 inches longer yet stands as the smallest production powerboat to go around. ©

Eilco Kasemier was the first to circumnavigate in a trawler yacht. Two days after *Bylgia II* (foreground) completed her voyage in Plymouth, England, David Scott Cowper departed with *Mabel E. Holland* (rafted outside) on what would be the first singlehanded circumnavigation under power.

Photos: Lester McCarthy of Motorboat and Yachting/IPC Syndication

Circumnavigators Under Power

The list of private motor yachts that have voyaged around the world is still short, but likely to grow rapidly over the next few years as more and more trawler couples graduate from coastal cruising.

Name	Country	Name of vessel	Make or type	LOA	Dates	Notes
Albert Gowen	U.S.	Speejacks	Custom	98'	1921-1922	First yacht without sails to circumnavigate East to West
Don & Ann Gumpertz	U.S.	Westward	Custom	86'	1970-1976	First yacht without sails to circumnavigate West to East
Eilco Kasemier	Holland	Bylgia II	Custom	39' 1/2"	1983-1984	First trawler yacht to circumnavigate, and still the smallest
David Scott Cowper	England	Mabel E. Holland	Converted lifeboat	42'	1984-1985	First singlehanded circumnavigation under power
David Scott Cowper	England	Mabel E. Holland	Converted lifeboat	42'	1986-1990	Singlehanded circumnavigation via the Northwest Passage
Bruce & Joan Kessler	U.S.	Zopilote	Delta 70	70'	1990-1993	First U.S. trawler yacht to circumnavigate
Jim & Susy Sink	U.S.	Salvation II	Nordhavn 46	45' 9"	1990-1995	First production trawler yacht to circumnavigate
Ghanim Al-Othman	Kuwait	Othmani	Nordhavn 46	45" 9"	1998-1999	First Arab trawler yacht to circumnavigate
Jim Leishman et al	U.S.	Nordhavn	Nordhavn 40	39' 9"	2001-2002	Smallest production trawler yacht to circumnavigate
Heidi & Wolfgang Hass	Germany	Kanaloa	Nordhavn 46	45' 9"	1996-2002	First German trawler yacht to circumnavigate

Other noteworthy circumnavigations under power:
- Ben Carlin in Half-Safe, an amphibious Jeep
- Bryan Peterson of the U.S. in Sunrider, a modified Zodiac 24
- Jock Wishart in Cable & Wireless Adventurer, a custom 115-foot trimaran

Most miles voyaged without completing a circumnavigation:
- Michael Poliza in Starship, a Northern Marine 75, who covered 75,000 miles in 1,009 days at sea during a voyage from Anacortes, Washington, to Hamburg in his native Germany

After taking our Nordhavn 40 around the world in record time, there's only one thing we would do differently. Slow down.

Recently, one of our stock Nordhavn 40s completed a 25,000-mile circumnavigation in record time for a production boat of this size. It was the ultimate sea trial, as those of us who design, develop and sell Nordhavns took her to sea to prove that we not only have the most seaworthy, dependable boats, but in the long run, they're also the fastest production boats in the world.

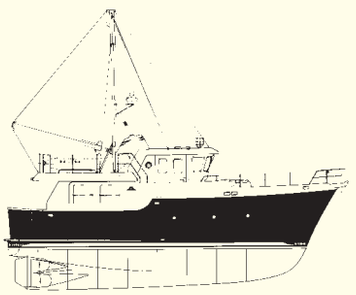
Because our design and construction allows Nordhavns to run comfortably and safely in all kinds of conditions, we kept going when others would have had to run for shelter. So like a smart, long-term investment, the rugged, reliable Nordhavn will always outperform the flashy, too-good-to-be-true claims of "faster" boats.

After completing the circumnavigation in less than 25 weeks, our only regret is that we didn't slow down enough to enjoy the fascinating ports of call we passed through.

After experiencing typhoon conditions in the Pacific and ferocious storms in the Mediterranean, we know this little ship can handle virtually anything. With over 4,000 hours on her engine and continuous, round-the-clock use of her systems, we can confidently claim she is one of the most dependable yachts ever built. Here are some of the reasons why.

Modified Full Displacement Hull

In order to get around the world safely and comfortably in record time, you need to slow down to displacement speed. We averaged from 6 to 8 knots throughout the voyage — around 6 knots for the longest, non-stop leg of 2,400 miles from



California to Hawaii. The 40's hull features a Modified Full Displacement (MFD®) design that incorporates a long keel with 4,000 lbs of lead ballast; and a sturdy skeg, fully protecting the prop, shaft and rudder. Planing hulls can go faster for short periods of time, but in the long run, our MFD hull will keep going, day and night, even in severe conditions.

Stabilized For Comfort And Safety

Using both active fin stabilizers by Naiad, and towed "flopper stoppers," our Nordhavn 40 provided a stable, comfortable platform in all kinds of seas. Obviously, there were times it was necessary to hold on to an interior handrail, but our ship was never rolling dangerously, even in 20-foot seas during the Pacific typhoon.

Single Engine Efficiency And Dependability

Running at our slowest cruising speed during our longest transoceanic legs, we covered over 1,000 miles per week, averaging almost 2.5 miles-per-gallon of fuel for the entire circumnavigation. The incredibly dependable Lugger engine never skipped a beat, and we never had to rely on our back-up "get-home" Yanmar. Running between 1,400 and 1,800 rpm, she was quiet, smooth and fuel-efficient.

A Separate Pilothouse For Serious Navigation

Today's electronics are a marvel in performance and dependability, but they need a proper place to function as designed. The

Nordhavn 40's pilothouse provides an ideal layout for the installation and easy use of multiple radars, chartplotters, depth sounders, communications equipment, an autopilot, a laptop computer, and traditional paper charts. Located to minimize motion while at sea and equipped with an off-watch berth, this space separates the serious, oceangoing vessel from the coastal cruiser.

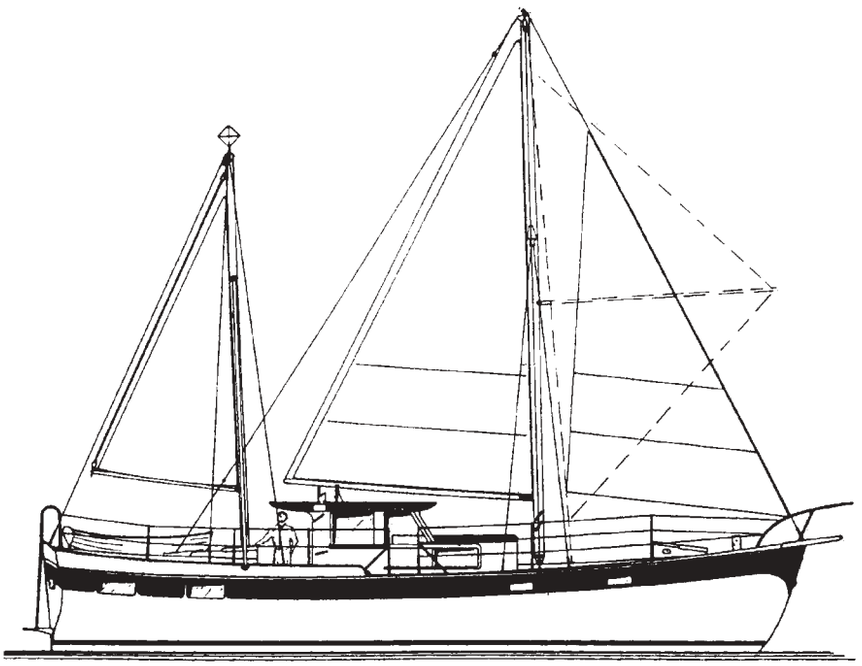
People With A Passion For The Sea

Behind the intelligent design and robust construction of all Nordhavns is a staff of seagoing professionals who are fanatical about the boats we develop and sell. No detail is too small to worry about, no piece of gear is casually considered, and no problem goes unanswered. We continually challenge ourselves to make the finest, most trustworthy boats that people with modest skills and physical abilities can take anywhere in the world. We challenge you to find a better boat and a more exciting way to live your dream.

To learn more about our entire line of Nordhavns, including our 35 Coastal Pilot, our classic 46, our all new 47, our 50, 57, 62, and our new flagship Nordhavn 72, visit our website at **www.nordhavn.com** or call 949-496-4848.

NORDHAVN
POWER·THAT·IS·OCEANS·APART®

35 40 46 NEW! 47 50 57 62 NEW! 72



Beebe

He designed the original *Passagemaker* and fathered the modern-day trawler yacht era

By Blake August

Before he died in 1988, Robert Beebe designed 111 individual vessels, none more famed than his 67th design which he built for himself and named *Passagemaker*.

The voyages Beebe made with *Passagemaker* proved his theory that the oceans of the world could be explored in a proper powerboat with greater comfort and dispatch than in a sailboat. The book Beebe wrote—Voyaging Under Power—launched the modern-day trawler yacht era and still serves as its bible today.

Beebe first wrote about the concept of passagemaking under power in 1946 in an article in Rudder, a leading boating magazine of the time. It was then that he coined the word "passagemaker" as the term for ocean-crossing vessels.

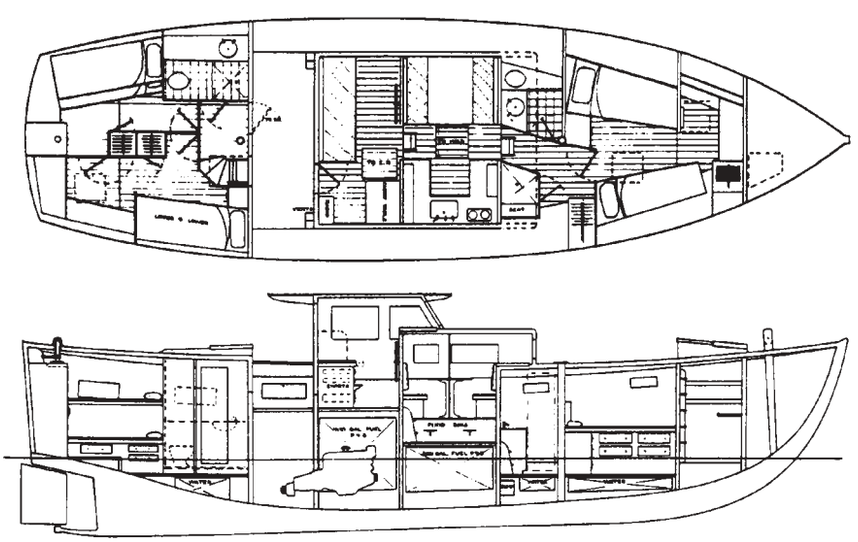
Passagemaker was built in Singapore and launched in 1963. The 50,000 sea miles that Beebe put under her keel over the next five years was unheard of in a day when sailboats were the only recreational vessels venturing out of sight of land.

At the urging of a fledgling publisher named Steve Doherty, Beebe wrote Voyaging Under Power. Published in 1975, the book went on to become a Dolphin Book Club main selection and a best-seller. It motivated a Dutchman named Eilco Kasemier to build a 39-foot power voyager and 10 years later become the first to circumnavigate the world in what we today call a trawler yacht.

VUP, as Beebe called it, inspired the birth of Nordhavn. The book had such an impact on Jim Leishman that he convinced his partners in Pacific Asian Enterprises to defer a new Mason sailboat design and develop a powerboat capable of cruising the oceans of the world in safety, comfort and style. He and his brother, Jeff, leaned heavily on Beebe's principles in the design of the Nordhavn 46, first splashed in 1989.

What is it that Beebe pronounced more than a quarter century ago that has had such lasting impact? He believed a boat capable of voyaging under power should have these features:

• A reliable and consistent means of reducing rolling, because crew comfort is a must.



• Ability to operate under autopilot, one of the great advantages of an engine-running-all-the-time vessel.

• Still-water range of 2,400 nautical miles.

• Capability of single-handed operation, necessary for a proper passagemaker that will be operated, for the most part, by a husband-wife crew.

• An ideal LOA of around 50 feet.

• A secure place for the single watch-stander to go outside the pilothouse to observe surroundings.

• A balance of good in-port living space and the necessary seaworthiness for ocean voyaging.

• Lifeline stanchions 40 inches high in exposed areas.

Beebe's light shone brightest when he delved into the technicalities of ocean-going motorboats. Among his conclusions:

• A satisfactory ocean-crossing vessel cannot have a displacement/length ratio (D/L) less than 270 in the 50-foot overall size. The shorter the vessel, the larger the D/L should be.

• Speed-length is the most important ratio. Hull speed is only of academic interest, as S/L ratios between 1.1 and 1.2 encompass the practical speeds for power voyaging.

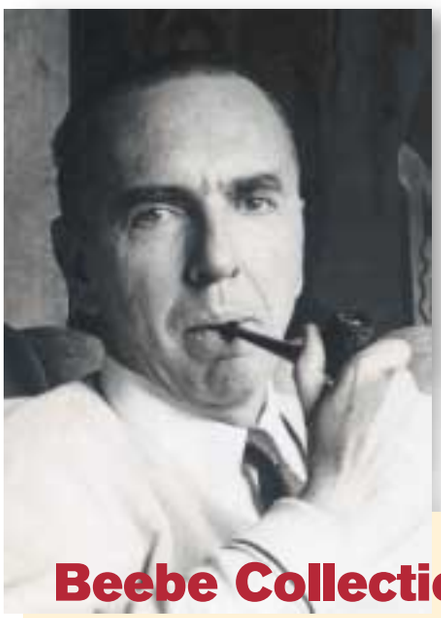
• The ratio of the vessel above water to that below water should be in the range of 2.1 to 2.6 for safe passagemaking.

• A prismatic coefficient (PC) between .50 and .60 makes the most sense for passagemakers.

After VUP went through two editions, Jim Leishman of PAE was invited to update the book. The result was the third edition, published in 1994 by International Marine, and available widely.

After Beebe sold her, the original *Passagemaker* went through several owners, actively cruised the East Coast and Caribbean, and underwent several upgrades to equipment. Unfortunately, circumstances have conspired to keep the old girl on the hard since early 2001. A non-profit foundation to purchase and preserve *Passagemaker* has been discussed by admirers. For information, write Friends of Passagemaker, 3377 Bethel Road S.E. #107, Port Orchard, Washington 98366, or e-mail passagemaker@trawlerworld.com. ◘

Robert Beebe changed the face of boating when he introduced his ideas for long-range cruising under power in 1975 with the first edition of Voyaging Under Power. With *Passagemaker*, he proved those ideas over 50,000 sea miles.



Passagemaker Tea

Robert Beebe also gave the world Passagemaker tea, which is tea sweetened with Tang and laced with rum. It's a wonderful concoction for lubricating the machinery of conversation aboard vessels at rest.

Beebe Collection housed at Mystic Seaport

The Capt. Robert P. Beebe Collection consists of plans and manuscript material from the personal collection of Robert Beebe. The vessel plans were a 1999 donation presented to Mystic Seaport by his widow, Linford Donovan Beebe. His daughter, Lucy Beebe Tobias, consequently donated her father's manuscripts and photographic collection.

Steve Doherty, publisher of Voyaging Under Power in 1974, and a Beebe friend and crew, believed that the plans had enduring value and should be preserved. It was through his efforts that the plans arrived for preservation at Mystic Seaport Museum in Connecticut.

Martin Tobias, the grandson of Captain Beebe, established The Martin and Alex Tobias Family Foundation, and generously awarded the Ships Plans Division $50,000, providing an internship to catalog the extensive collection.

Born in 1909, Beebe graduated from the Naval Academy at Annapolis with a degree in aeronautical engineering. He served in the U.S. Navy as a navy pilot, flight training officer, and navigation officer on board the aircraft carrier *USS Saratoga* during World War II. An amateur naval architect who designed, built and wrote, throughout his naval career, he dedicated himself to the profession full time upon his retirement from the Navy in 1961.

Beebe's earlier drawings were for traditional craft, particularly sharpies, canoes and kayaks. He became a pioneer in the design of powerboats capable of cruising long distances on open and coastal waters; many of his design concepts are still in use by naval architects today. Beebe published extensively in Rudder, Yachting, and other maritime publications while still in active naval service. He later wrote Voyaging Under Power, published in 1975.

Capt. Beebe—Bob to his friends—died in 1988. Through the efforts of his family and friends, his legacy in the field of marine design and development will now be preserved and remain available for research.

The Capt. Robert P. Beebe Collection is housed in the Ships Plans Division of the G. W. Blunt White Library at Mystic Seaport. For information, contact Ships Plans at 860-572-5360 or direct your e-mail inquiry to shipsplans@mysticseaport.org.

Photo and drawings courtesy of Mystic Seaport

Ultimate sea trial

In sending a Nordhavn 40 around the world, Pacific Asian Enterprises rewrote the book on voyaging under power

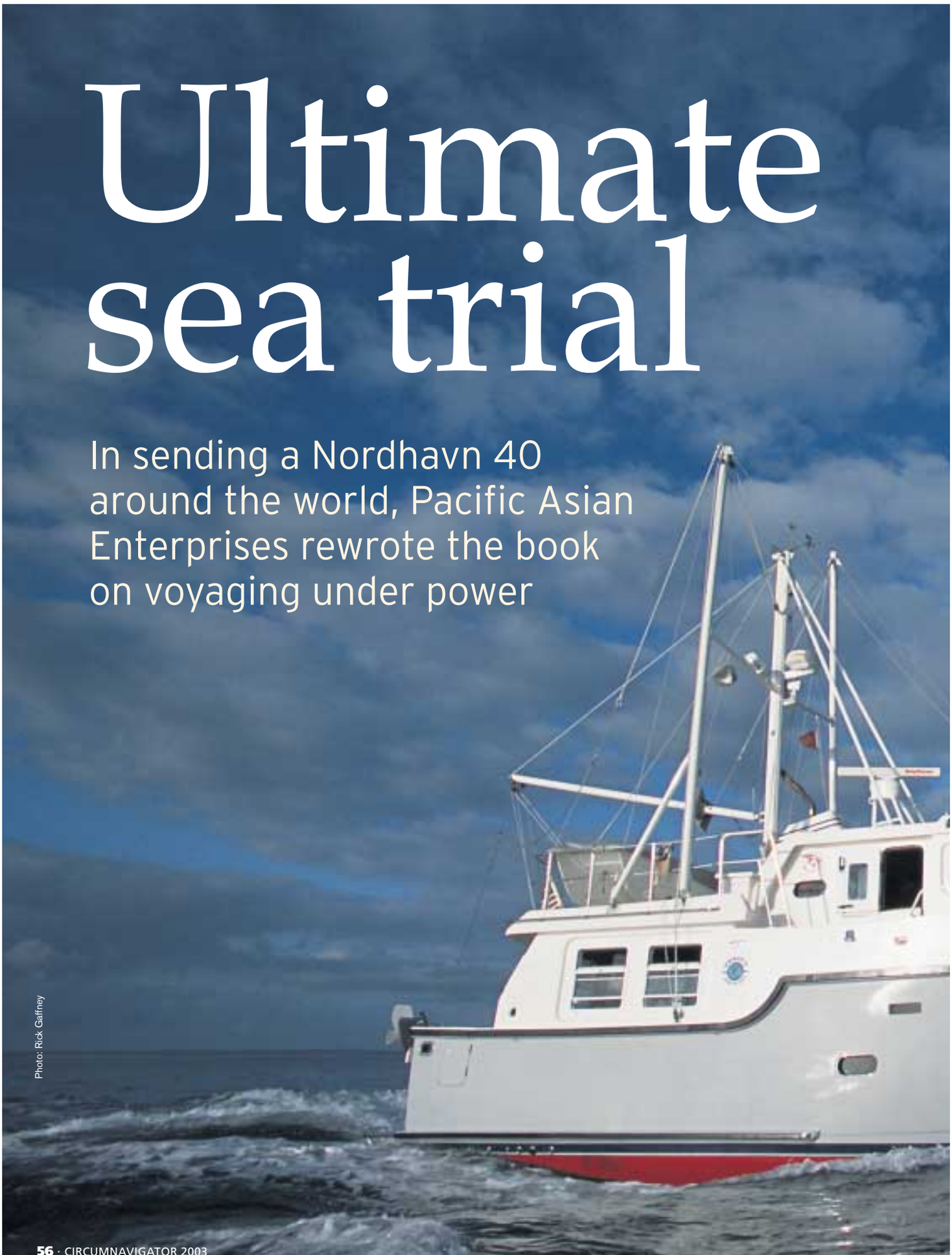


Photo: Rick Gaffney

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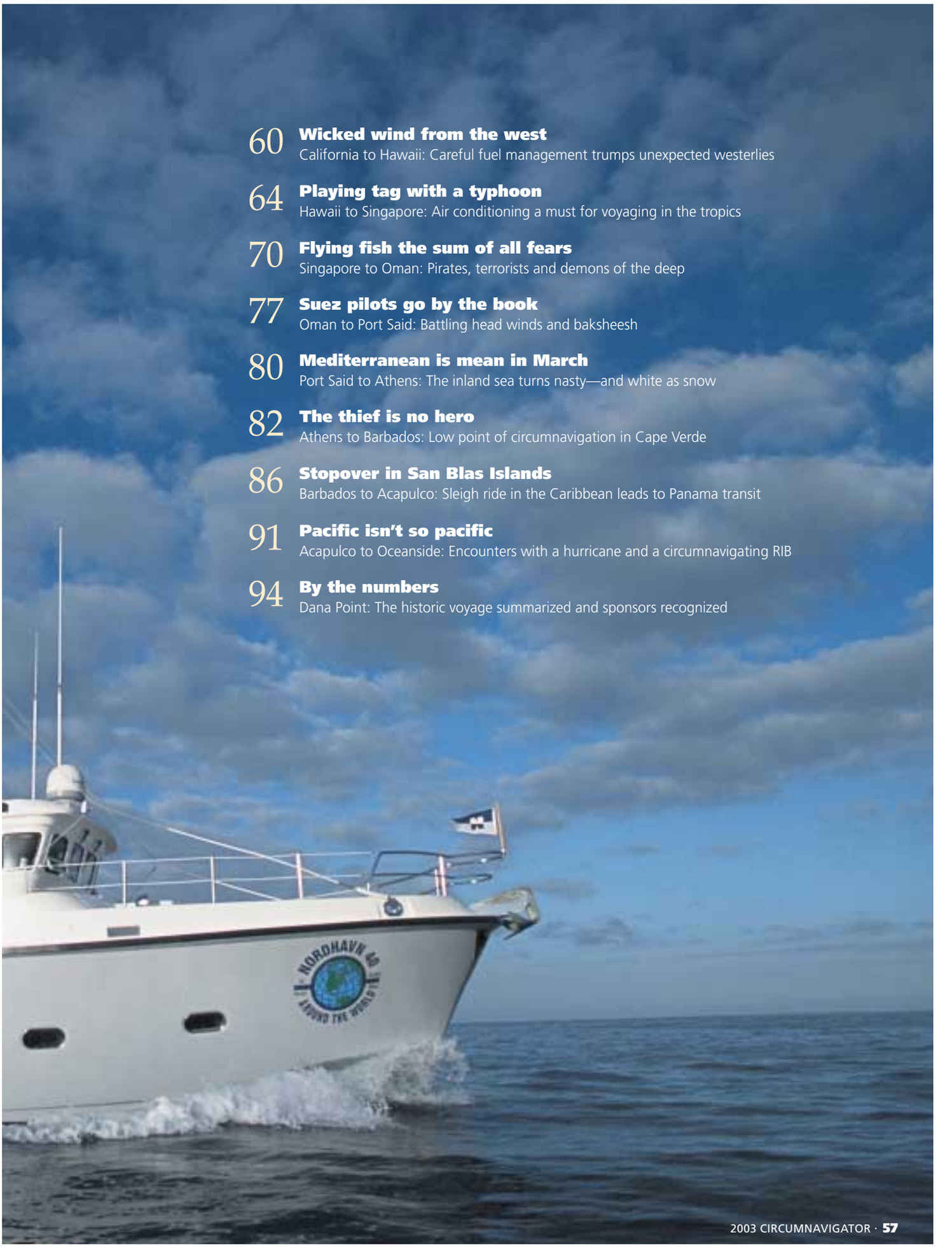


Global challenge

Map: Roberta Cooke-Voteary

NORDHAVN 40
26 Weeks
26,000 Miles
AROUND THE WORLD

The crew of *Nordhavn* battled a typhoon in Micronesia and storms in the Mediterranean. They crossed the pirate-plagued waters of the South China Sea and the uncertain waters of the Middle East. They transited two

Photo: Rick Gaffney

canals, three oceans and seven seas. Despite the challenges, *Nordhavn* completed the record-setting voyage around the world without a single, significant failure. After eight months and 24,000 nautical miles at sea, the Nordhavn 40 became the smallest production powerboat to circumnavigate.

Here's a first-hand account of the voyage, and a primer on passagemaking in comfort and safety—and with dispatch.

Wicked wind from the west

Careful planning ensured we weren't caught short of fuel when unexpected westerlies slowed our progress

By Jim Leishman

Leg one of our voyage around the world would be an instructive one. It would illustrate the importance of weather forecasting and fuel conservation on the 2,345-mile passage to Hawaii—generally regarded as the longest in a world circumnavigation when using the most popular sailing routes.

But at noon on November 3, that was still in the future as we departed with a fresh breeze from the northwest and hazy skies overhead. There had been a wonderful send-off party and a dozen or so yachts (mostly Nordhavns) were seeing us off. One by one they turned back, and after 45 minutes the last escort sounded his air horn and waved us farewell.

We were under way. Aboard with me were Dave Harlow, a long-time PAE employee and project manager for the Nordhavn 46, 47 and 50, my 18-year-old son, Eric, who is on the commissioning staff at PAE, and journalist Georgs Kolesnikovs, founder of the West Marine Trawler Fest series.

The Nordhavn 40 called *Nordhavn* is an off-the-shelf production boat built by Pacific Asian Enterprises.

The first three or four days of the passage to Hawaii are always tough. Once clear of the offshore islands, the full force of the Pacific is felt. Northwest winds of 20 to 25 knots and a sea of eight to 10 feet are common and exactly what we encountered. Also common are fatigue and queasy stomachs that come with adjusting to the motion of the ship. With November overcast and cool, we were happy to have the Hurricane Diesel Heater aboard, and used the engine waste heat to keep the interior warm and dry.

I had assured Eric that by Day 5 we'd begin to see the wind shift around to the north, then northeast, and our 55-degree temperatures would soar into the high 70s—bathing suit weather! It did, but only for about 24 hours. On our sixth day we began to notice a developing low to the north. This early season storm would bring the winter's first significant moisture to the California coast and totally disrupt the northeast trade winds. Instead of the favorable 15 to 20 knots of wind on our stern and one-half knot of west-setting current, we would have a southwesterly of 25 knots and an east-flowing surface current which dropped our speed by a knot and a half. A subsequent low would further hamper our progress. On the entire voyage to Hawaii we had only three days of trade wind conditions.

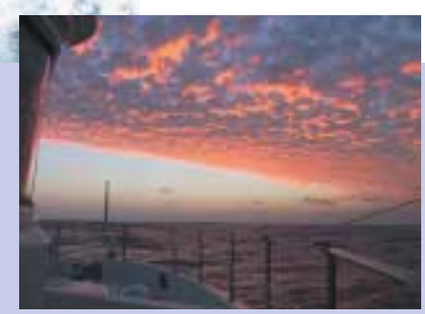
We had done extensive testing of our vessel to determine the exact fuel consumption at various RPMs and the speed achieved, and with this information we developed our strategy for the crossing. We estimated that at weight—burdened with full fuel,

Photo: Rick Gaffney

LOGBOOK

From:	Dana Point, California
To:	Honolulu, Hawaii
Distance:	2,345 nm
Speed:	6.04 knots
Fuel burn:	2.22 gph
Captain:	Jim Leishman
Crew:	Dave Harlow, Eric Leishman, Georgs Kolesnikovs

Around-the-world voyage director Jim Leishman cools his heels en route to Hawaii.



An idea brews

At the end of a long and mentally draining day at the Seattle boat show, Jim Leishman, one of the owners of PAE, and Ray Danet, a longtime sales representative, retired to Crab House, a popular bar-restaurant on Lake Union. It was January 2001. During the first round of cold, unfiltered wheat beer, talk turned to the Nordhavn 40 the company was building to serve as a demonstrator. In the summer, the boat was to be run to Alaska where it would be cruised by PAE sales staff, project managers, designers and office personnel. Giving the people who build and sell Nordhavns experience cruising the boats had always paid dividends for PAE and led to improvement of the boats and their systems. By the second round, there was much agreement that the cost of the summer's cruise was insignificant relative to the knowledge that PAE would gain. At which point, Jim asked, "Why not take our little 40 around the world, for the adventure of doing it and for the experience which, as boatbuilders and designers, we need to have?" Ray thought it was the best idea he had ever heard at PAE and immediately volunteered to crew on the South Pacific leg. On napkins, the route and mileage estimates were sketched out, and the third round of wheat beer was forgotten . . . almost.

— Georgs Kolesnikovs, Trawler World

Eric Leishman is shown above with one of the many fish he landed, while Dave Harlow shows his talent as a sommelier and fisherman too. Eric froze much of his catch and took it home to Mom.

There is little time for recreation after *Nordhavn* reaches Honolulu and crew members receive leis, the traditional Hawaiian welcome wreaths.

Photo: Rick Gaffney

A box stock 40

The idea was to use a totally stock vessel, with no added tankage or deck fuel. We were already building N40 #21 for company use when we made the decision to proceed. The basic boat is designed for offshore use, so preparation decisions only had to do with added convenience and safety equipment. In fact, gear that was added to the boat to enhance the shakedown cruise to Alaska, such as a Hurricane hot-water cabin heater, might not have been added if the vessel was to be used solely for the circumnavigation. Some equipment that would be desirable, primarily air conditioning, was not added, which proved to be a big mistake. The only structural additions were four acrylic storm plates for the saloon windows. The standard boat includes the welded aluminum lugs to accommodate the plates.

— Jim Leishman

extensive equipment, spare parts and provisions—we had a range of over 3,000 miles, and if necessary could run slower to extend that. I further anticipated that once we cleared the California coast by a few hundred miles we would enjoy the favorable currents that typically flow to the west, pushed along by northeasterly winds. During our sea trials of a fully loaded vessel, we found we could run at 1,400 rpm, averaging 6.3 knots and consuming about 1.9 gallons of fuel per hour. This is a boat weighing over 50,000 lb with a bow thruster, wing engine and 12 sq ft of stabilizing fins. Using the performance of the vessel at its highest possible weight will give a reserve in itself because the weight reduction in fuel alone will insure better performance at the end of the voyage, adding to the true range of the vessel. Taking the great circle route to Honolulu, we should have been able to arrive with reserve fuel of 233 gallons or an excess of 25 percent.

As it turned out with *Nordhavn*, we had sea state conditions which I would consider normal for the voyage. However, the wind that generated them was not the planned easterly but a southwesterly wind which hampered our progress almost the whole trip.

The relatively rough conditions encountered offshore will slow down any vessel between six and 10 percent from its calm water performance. However, the wind that creates the rougher sea, if consistent, will generate a surface current. In the case of the California-to-Hawaii passage, that surface current is typically west-setting about a half-knot, being generated by 15-knot easterly winds and this nor-

mally would have offset or canceled the anticipated rough-water speed reduction. We got slowed down, losing speed to the bumpy water, plus we got hit with a surface current going the wrong way, a result of sustained southwesterly winds.

The net result is that we burned the anticipated amount of fuel per day (48 gallons), however, our speed was reduced by over 1.5 knots. As we approached the Hawaiian Islands with a good weather forecast and great confidence in our fuel consumption and the amount remaining, we increased speed and made up most of our lost time. We arrived only about 15 hours later than planned, but with much of our reserve fuel consumed—clearly illustrating the need for an adequate reserve.

Despite the westerly winds, we did enjoy some lovely tropical weather, great food (including lots of fresh dorado) and the camaraderie and relaxation that a long ocean passage can generate. Our 40-foot Nordhavn proved a wonderful passagemaker, and the success of the first and longest voyage of the circumnavigation confirmed the vessel's ability to safely and comfortably complete the challenging legs that lay ahead.

Photo: Rick Gaffney

On a long ocean passage, the days fly by with dolphins playing in the bow wave, journal writing, book reading, and plain relaxing. One is busier in a port-of-call than at sea.

E-MAIL

Are you enjoying the passage to Hawaii?

Perhaps the best way to reply will be to quote a passage from my journal:

Day 10: Dana Point to Honolulu
13 November 2001
0315 Pacific Standard Time
Latitude 25.32.502 North
Longitude 139.46.361 West
Heading 245 M
Speed 5.9 knots at 1,395 RPM
Distance run 1,302 nm
Distance to go 1,029 nm

Now, this is passagemaking in the NE Trades!

When you awake to start your night watch, you can hardly discern you're on a boat, let alone on a boat in the middle of the Pacific, so gentle is the motion. There is 6 to 8 knots out of the ENE which puts the breeze on our port quarter. There ís no moon yet, so it's too dark to tell for sure, but there must be a lazy swell from the north. We're moving right along at almost 6 knots.

Have I mentioned stars? Stick your head out the Dutch doors and you almost gasp at the panoply, if that's the word I'm looking for. Remember, English is not my mother tongue.

Now that we're 1,300 nm from North America, familiar constellations no longer look the same. The Big Dipper is balancing on the tip of its handle. Orion looks unusually upright. The Milky Way you can almost reach up and touch.

Have I mentioned food? Prime rib last night with humongous baked potatoes lathered with sour cream, all washed down with a lovely Mondavi merlot. A roasted chicken the other night. Filet mignon. Made-from-scratch sauce for perfectly cooked pasta. More sashimi than we can eat. A mountain of oniony home fries with bacon and eggs in the morning.

Yes, it's quite a struggle getting to Hawaii on a trawler.

— Georgs Kolesnikovs, Trawler World

Playing tag with a typhoon

Rough seas, sweltering heat and a tropical storm named Faxai add to the adventure

By Jim Leishman

The first leg to Hawaii had been plagued with unfavorable winds and currents, and the next leg would prove even more difficult. This time, heat, humidity and storms would test *Nordhavn* and her crew.

With a good forecast and 2,000 miles to go, *Nordhavn*, full of fuel and supplies, departed Ko Olina Marina on November 23, bound for the atoll of Majuro within the Marshall Islands chain. Original plans had been for me to continue on as skipper, but for various reasons that wasn't possible. Instead, Dave Harlow of PAE would take over as captain, aided by crew members Ray Danet, also of PAE, and Tom Selman, a good friend of the company and owner of *Prime Time*, a Nordhavn 50. I would meet *Nordhavn* and relieve our crew in Singapore, and in the meantime I lived the voyage each day thereafter, providing weather information and assistance on the long Pacific Leg.

Within three days of Hawaii, a weak low came through, creating more southwesterly winds and an east-setting current. As *Nordhavn* worked her way through lower and lower latitudes, the temperature and humidity soared. During the heavy weather—and in particular the heavy rain–it was necessary to close up the boat, making things quite uncomfortable. This boat was built for a summer's cruise to Alaska and when we decided to take her around the world, the space and expense of air-conditioning seemed excessive. We felt that at sea, with constant trade winds, we could get by without it. Big mistake.

Nordhavn made landfall at Majuro on December 5 after 15 days at sea. Conditions improved with strong northeasterlies filling in, however, the sea conditions were rough and there were constant rain squalls. Our next guest journalist, John Wooldridge, was

LOGBOOK

From:	Honolulu, Hawaii
To:	Singapore, Singapore
Distance:	6,222 nm
Speed:	6.65 knots
Fuel burn:	2.59 gph
Captain:	Dave Harlow
Crew:	Ray Danet, Tom Selman (Honolulu to Yap), John Wooldridge (Majuro to Kosrae), Brad Smith (Yap to Singapore)

A swim below a waterfall refreshed the crew in Pohnpei (far left); an anchorage in an atoll off Majuro (top); Dave Harlow with a native stick chart in Majuro; Tom Selman prepares to bake bread aboard *Nordhavn*; colorful flora and fauna abound on the islands of Micronesia.

waiting in Majuro to board *Nordhavn* for the voyage to Pohnpei. He would have plenty to write about.

After routine fueling and servicing at the commercial docks and a little sightseeing and provisioning, Captain Dave put to sea for the island of Pohnpei, about 800 miles to the west. The northeasterlies were stronger than ever and conditions were rough upon clearing Majuro. With winds at 30 knots and 10- to 12-foot seas, the crew settled in for a tough five-day passage.

Back in Dana Point, my job was to provide daily weather reports and assist our crew. Aside from the strong but somewhat typical trade winds, all looked normal, with no tropical disturbances or advisories that would indicate a problem. I gave the crew a green light via our Iridium phone and Stratosnet e-mail.

To my amazement, within a few hours after departure, the Joint Typhoon Agency of the Navy and Air Force issued a tropical depression alert, the center of which was expected to track a path upward and across toward Pohnpei—right where our boys were headed. This was more

PRIMER

Weather considerations

After my business partners in PAE responded favorably to the idea of a company-run circumnavigation, I began to look at the route and the feasibility of making the trip in a single season. To my astonishment, it looked totally doable. I consulted Jimmy Cornell's World Cruising Routes and spoke with our friend and weather forecaster, Walt Hack of New Jersey, and found it ideal to depart California for Hawaii in November and then, as fast as we could move west, the seasons would open up with favorable conditions.

November is a good month to cross to Hawaii as the threat of tropical storms has passed, yet it's too early for the mid-winter storms which appear in December and January. The Western Pacific and Philippines are plagued with typhoons in September, October and November, but by mid December the threat passes and the South China Sea begins to feel the cooling effects of the northeast monsoon.

By mid-December conditions are ideal for transiting south from the Philippines to Singapore, and then by January the monsoon's northeast flow of wind and current provide favorable conditions for crossing the Indian Ocean. Moving northwest up the Red Sea in February is tolerable and, though it would be better to enter the Eastern Mediterranean six or eight weeks later, early March is acceptable. Transiting the Mediterranean and entering the Atlantic by the end of March requires some caution, but once the vessel turns south and reaches the Cape Verde Islands in April the spring crossing of the Atlantic to Antigua is fine. The Caribbean can be crossed and the Panama Canal transited and our boat heading north in the Pacific before the beginning of the summer's hurricane season.

At the end, I concluded that with a lot of hard running and a little luck we should be able to circumnavigate the world in less than a year, a record for this type motor vessel. And we went for it! *— Jim Leishman*

weather than I was comfortable to predict, so I called our friend and professional weather forecaster, Walt Hack in New Jersey, and he went to work trying to sort out this late season tropical depression.

We decided that we needed time to watch it develop so I recommended to Captain Dave that he divert slightly to the atoll of Alinglapalap, where there was a safe anchorage within a large lagoon. The tiny island is about 170 miles west of Majuro and only about 15 miles north of their track line to Pohnpei. Dave agreed and within 12 hours of his arrival the tropical depression had built strength and direction, heading off on its predicted northwest track. Walt felt it was no longer a threat so we released Dave to resume heading for Pohnpei.

The Joint Typhoon Agency releases an update of tropical depression, storm and typhoon tracks and speed every six hours so I found myself anxiously awaiting each new report. At odd hours at night I headed downstairs to check the latest news. Within 24 hours of *Nordhavn* departing Alinglapalap, I was shocked to see the tropical depression (now named Faxai) had been upgraded to a tropical storm. Even worse, it had turned to the west, then south and back to the east. Sustained winds of 50 knots were being reported and Faxai was heading around to the east of Pohnpei. I called Walt to confirm and he too was surprised. This just doesn't happen. I immediately consulted my computer and C-Map charts and found the island of Kosrae, about 150 miles south of *Nordhavn's* track and the only refuge from Faxai. We calculated that at full cruising speed of just under 8 knots they could make Kosrae before dark the following day and stay out of the predicted storm track. The decision was made.

QUOTE

"Suddenly, everyone was awake. The thought of spending another night at sea in these conditions was not comforting. And, very privately, I think each of us asked ourselves why we were here at all, why we would subject ourselves to these conditions and perils. It's the experience, of course, the adventures to remember, the photos to display and the stories to tell."
— John Wooldridge, Motorboating

On Yap, a fallen Japanese Zero rests in the woods, and a native shows Ray Danet the stone money still in use today.

In the hours to follow, Faxai continued to disobey the law of storms, tracking farther east than anticipated. It was headed directly for Kosrae and was predicted to arrive at the same time as *Nordhavn* . We had no choice but to push on. With seas at 18 to 20 feet and sustained winds in excess of 40 knots, landfall was made at the western harbor of Lelu. The winds were howling and the rain was torrential, blocking the radar's ability to penetrate into it. The entire crew strained to see the entrance buoys and Dave felt uneasy about the plotter's accura-

E-MAIL

Dancing with the dolphins

We had a school of dolphins with us yesterday. I stayed on the bow for some time just to watch them. After a while, you begin to see a pattern in their play. I'll try to explain it. As a full-displacement boat pushes through the water, it creates an underwater bow wave. So, this is what they do: Off our starboard bow ocean waves form and the dolphins catch that wave and surf towards the bow of our boat. When they get there they surf our bow wave and then catch another ocean wave. At the end of this sequence they either come back through the wave and are airborne, or three or four would jump out of the water in unison. They would only do this if they caught an extremely good wave. I can almost picture them giving each other a high five.

— Ray Danet

cy, so he spun the boat around and began heading out into the rising sea. There was another harbor on the lee side of the island and he felt it safer to push on rather than make a fatal mistake here. Just then, the crew looking aft from the cockpit saw a break in the rain, and the entrance buoys and channel came into view. Dave went to full throttle and spun the boat again in the huge seas, quite literally surfing in. With his knees knocking, Captain Dave got boat and crew into Lelu safely and dropped the anchor.

And that's where they stayed for five full days as Faxai parked itself over Kosrae, at times dropping one inch of rain per hour. The boat was in a small basin with a seawall behind, anchored in 30 feet of water. Due to the lack of swinging room, only about 150 ft of chain could be laid out, but the big Bruce 110-lb anchor never budged.

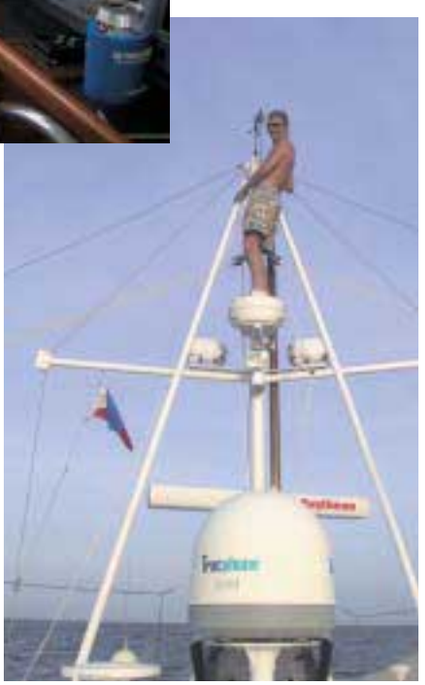
It was a stressful time for the crew as the boat could not be left unattended. The wind would tumble over the high island peaks and blast down on *Nordhavn* from all angles. At times, when the squalls passed through and the winds increased, Dave felt compelled to run the engine in anticipation of a dragging anchor. Additionally, there were two sailboats within the anchorage and there was concern over their dragging into *Nordhavn*.

The heat played a major role again during the heavy rains. The humidity was unbearable, and with horizontal rain coming from all angles even an open port would soak the boat's interior. By now Dave and Ray had adapted somewhat to the heat, but Big Tom and John, with so little time to acclimate, were oppressed by it. Tom said he was going back to Seattle and lie in the snow all day making snow angels.

Finally, Faxai regained her direction and sped off to the northwest. Moving higher in latitude, she attained typhoon strength and then super typhoon with sustained winds of up to 190 knots. Guam battened down its hatches in anticipation of Faxai, but she turned more north and then back to the east and finally died.

John had run out of time and had to leave *Nordhavn* in Kosrae. He never made Pohnpei but his experiences were certain to make good copy. Despite the weather, the crew took turns watching the boat and going ashore to do some solo exploring of Kosrae. Each found great beauty in this tiny but rugged and mountainous island, which lay under a canopy lush jungle. With its waterfalls and springs, and its friendly and happy people, Kosrae was truly a tropical paradise.

Dave, Ray and Tom departed Kosrae and had a routine passage the



An Iridium satellite telephone system enabled a steady flow of e-mail between ship, office and home, with Ray Danet shown at the main laptop aboard *Nordhavn*; Brad Smith enjoys the view from the rig, close to 30 feet above water.

PRIMER

How do you deal with the possibility of pirates boarding your boat?

Our policy aboard *Nordhavn* is that no one comes on board while we are at sea, not for any reason. If an unauthorized attempt at boarding takes place, we would use any means necessary to help them back into their own boat or the sea, whichever is closest. There will be, of course, exceptions to that rule, as one mariner must help out another in distress, but this would be on a case-by-case basis. If we are halted by a navy or coast guard, that would be a little different. We would have to comply with their wishes.

In a scenario where a ship asked for water, parts or food, I think we would listen to their needs and place a call on the satphone, VHF and SSB to let someone know of our situation. We would also make sure the ship in need knew of our calls and make sure that the ship in question remained well away during the transmissions and discussions. If they attempted to close with us after being asked not to, this would be cause to disengage and deny any assistance. In the end, if it was decided this was a genuine emergency, we would float anything we agreed to give them to them and let them pick it up.

The tough part is that you can't just leave someone at sea who is in need, but you also cannot risk your own vessel and crew. It is a tough call and has been since man first took to the sea.

— Dave Harlow

Keeping watch

The crew has really settled into the routine of a 3-hours-on-and-6-off watch schedule. We have a period of time 12 p.m. to 6 p.m. with no one scheduled on watch. Whoever feels like sitting in the wheelhouse at that time takes a few hours or so while the other two read, sleep, fix a meal or take care of maintenance items. There is a laptop in the pilothouse and the noon-to-6 p.m. open watch is a good time to catch up on office work or notes to home.

Here is our three-man watch schedule:

- Dave ..... 12 a.m. to 3 a.m.
- Tom ..... 3 a.m. to 6 a.m.
- Ray ..... 6 a.m. to 9 a.m.
- Dave ..... 9 a.m. to 12 noon
- Open ..... 12 noon to 6 p.m.
- Tom ..... 6 p.m. to 9 p.m.
- Ray ..... 9 p.m. to 12 midnight

The funny thing about any watch schedule is how you come to feel about your particular time slot. At first you tend to hate the slot you drew, but as time passes you get into the pattern of sleeping, waking for three hours and going back to sleep again.

You begin to look forward to being alone, to listen to any music you want, read undisturbed, right mushy letters home, or just stare ahead and dream.

On a warm night you go out and lean on a rail and watch the sea. There is nothing like this anywhere, it's your watch. If you stay out there long enough you can't help but think of those that came before, those that stood this same watch. A thousand times on a thousand different ships. On whalers, revenue cutters, tramp steamers, great ships of war and countless others. Watching for pirates, subs, tuna or whales while others slept and waited below.

They stood watch alone in the night, lights on low, thinking of the coming fight, of fish yet to be caught, wondering what the next sun would bring. And always dreaming of home, and the girl left behind. The names have changed, the ships have changed, even the times have changed, but the sea, the man and the dreams remain.

— Dave Harlow

remaining 300 miles to Pohnpei, and with a quick turnaround were bound for Yap, an island in Micronesia, 1,200 miles farther to the west.

A couple of days out of Pohnpei, Dave noticed an oil leak on one of two hoses which attach the remote mounted oil filter. It started off as a drop, but the volume increased by the hour. We had spare hoses for all of our steering system, stabilizers, and transmission coolers, but nothing for the oil filter. It was decided we would

reroute to Chuuk where the famous Truk Lagoon lies. Chuuk also has regular air service and Alaska Diesel Electric shipped new hoses direct.

The stop gave the crew the opportunity to see some of the World War II wreckage for which the lagoon is so well known. After receiving the hoses and completing the 10-minute task of changing them, they were off for Yap with continued fair weather. They made landfall January 6.

Because of the delays caused by Faxai, Tom was out of time and left in Yap after six weeks of invaluable help. In his place came PAE technician Brad Smith, who brought with him a new Marine Air 16,000 btu air-conditioning system.

Dave had been away from home now for almost eight weeks, Ray almost six. With only about 2,000 miles to go to Singapore, they could smell the barn. But Yap turned out to be such a terrific place that a couple of days of sightseeing were in order.

Work on the AC system was deferred until at sea. Brad, with Dave's help, performed a factory installation of the AC, and although we normally install three units on a Nordhavn 40, this single unit was enough to cool the owner's and guest cabins and allow the off-watch crews to sleep in 70-degree comfort despite the 95-degree deck temperatures. Normally, the saloon and wheelhouse would rarely use the AC while at sea, but for any tropical cruising I'd highly recommend it in the sleeping cabins.

Ahead of Captain Dave now was the Philippines, the first region where there was concern over security. The plan had been to avoid the southern part of the islands, where there has been terrorist and pirate activity. For years, the southern part of the Sulu Sea has been considered dangerous and is usually avoided by yachts. The route selected was through the San Bernardino Strait and then zigging and zagging to the north end of Mindoro to the port of Galera. After leaving Galera, the boat could run down the coast of Palawan and on to Singapore.

As Dave approached the Philippines, he was getting a favorable current and sea conditions were flat. From experience, he knew that another stop—clearing in, dealing with the Port Captain, immigration, refueling and outward clearance—was just not possible in less than 72 hours. He calculated his remaining fuel and the distance to Singapore, and decided to take a more southern route through the Surigao Strait, across the Sulu Sea, down the coast of Borneo and right on into Singapore. I agreed and they made the 2,000-mile passage non-stop in 13 days with fuel to spare.

It wound up far and away the most comfortable and efficient part of their leg, after the long-awaited northeasterlies that provide a fair sea and favorable currents in the central Pacific were never to be.

Nordhavn had a trying voyage on her Pacific leg of more than 8,000 miles, however, she had performed beautifully with only a few minor problems, all easily fixed en route. It was February 24 as Brian Saunders, Paul Grover and I watched her motor into Singapore's Raffles Marina, looking ready to continue her voyage.

The next 6,000 miles through politically-troubled water were now our problem.

BACKGROUND

Global contender

The Nordhavn 40 resembles a workboat more than a yacht. Stocky and muscular, bristling with a cargo mast, paravane poles and communication antennas, the 40 is all business, like a boxer in contention for the middleweight crown. Nevertheless, the 40 exudes a certain charm, a flair that's most appealing.

The workman look contrasts dramatically with the world-class yacht finish that becomes so obvious at closer range. The fairness of the glasswork and the quality of the hardware are outstanding, testimony to the gobs of money PAE poured into computer modeling and tooling, and the terrific working relationship that has developed between PAE and the Pacific Seacraft factory in Fullerton, California, where the 40s are built two at a time, with 50 men working one month to produce each boat.

There is the belief at PAE that the general hull form of the 40, with fuller sections aft and a flat transom, is the way to voyage the world. Out on the open ocean, one can see how tonnage works wonders, how the shape of the 40 gives it a comforting grip on the water.

Power is furnished by a Lugger L668D, a naturally aspirated, six-cylinder diesel that employs the venerable 414-cubic-inch John Deere as its base engine. The Lugger is mated with a heavy duty Twin Disk transmission running 3:1 reduction and can handle three times the horsepower the Lugger will produce. Cruising speed of 7 to 8 knots requires only 55 to 60 hp at 1,800 rpm. The engine is rated at 103 hp at 2,300 rpm. Jim Leishman clearly loves the 668: "We have purposely derated the engine to its lowest continuous service rating, so it's only producing one horsepower for every four cubic inches of cylinder displacement. As a result, in more than 125 boats that we've launched with the 668, we have had no catastrophic engine failures, not a single failure serious enough to strand anyone."

In PAE's experience, engine problems stem mainly from fuel problems—clogged filters or water in the fuel—or difficulties with cooling. On the 40, the 920-gallon fuel system is elegant in its simplicity and straightforward in operation and maintenance. The 40's Lugger is equipped with a commercial-grade Walter keel cooling system and a dry exhaust that exits a handsome stack high above the pilothouse roof.

The wheelhouse is centrally located on the boat with great lines of sight in all directions and well protected behind the 8-foot-high bow and Portuguese bridge. The wheelhouse layout provides ample dashboard space for a galaxy of electronics, with space above the line of sight for additional smaller instruments. A raised settee provides ideal seating for watch-standing on a passage, with a full-length watch berth aft of the settee. The Dutch doors port and starboard are great for ventilation, or for quickly sticking one's head outside for a look-see.

The saloon and galley on the 40 offer more space than on the Nordhavn 46 as they extend the full width of the vessel. Outside, there is only toe room on the sidedecks, but it is possible to work your way all around the outside of the boat in fair weather. The single head with sink and shower is also larger than either of the two heads on the 46. Headroom dimensions in the engine room are equal to the Nordhavn 50 with five feet available. In other words, this Nordhavn is a large 40.

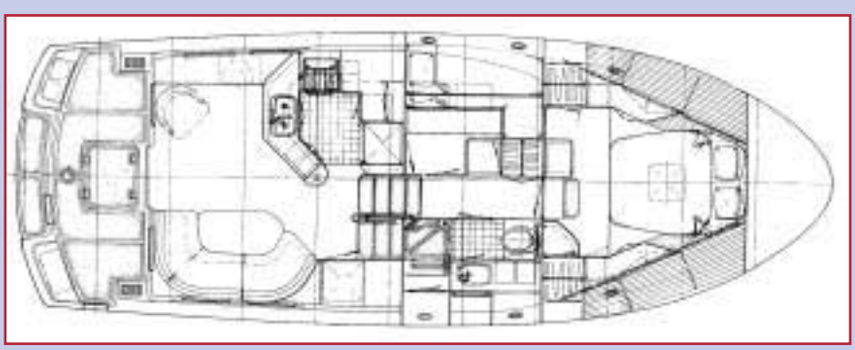
Throughout the interior, it's obvious the Nordhavn 40 is not a down-market boat. The teak selection and placement are pleasing, the execution marvelous. The oil-based satin finish looks rich. The plumbing fixtures imported from Germany and the lamp latches from Japan provide touches of elegance throughout the yacht. The quality look extends into the engine room where perforated aluminum sheeting covers walls and the overhead.

This degree of quality, pedigree and all-weather, trans-ocean capability makes for a production passagemaker worthy of an around-the-world record.

— Blake August, Trawler World

DATA SHEET

LOA	39 ft 9 in
LWL	35 ft 5 in
Beam	14 ft 6 in
Draft	4 ft 9 in
Displacement	50,000 lb
Year introduced	1999
Number launched	43



The sum of all fears: flying fish

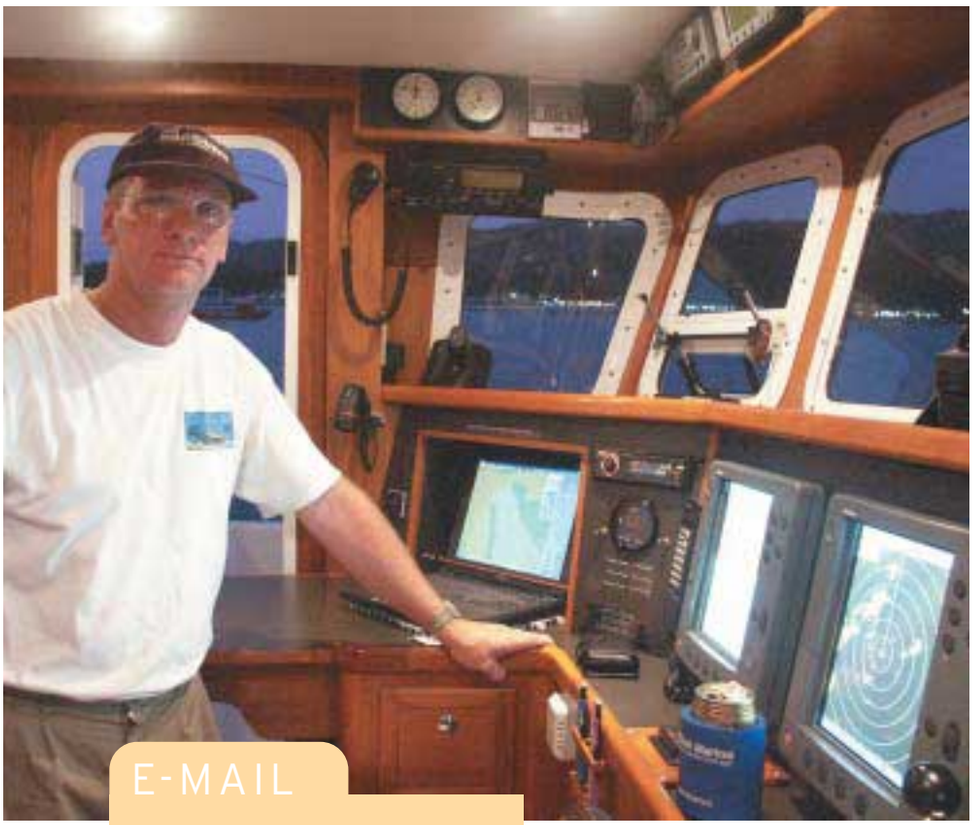
We were careful to avoid pirates and terrorists, but how do you prepare for suicidal flying fish and a leaping squid?

By Jim Leishman

We threw off our lines January 28, leaving behind the luxury of Raffles Marina for the uncertainty of an area notorious for piracy. And at the end of this leg was the gateway to the Middle East, which—after the tragic events of September 11—raised concerns of passing through in an American-flagged vessel. How were we to know that the only attack on *Nordhavn* would come not from boat-jackers or terrorists, but from schools of crazed flying fish and a squid determined to make his mark?

This leg would also see some incredible voyaging, the kind that sailors dream about, the kind that makes it all worthwhile. Accompanying us on the first stage—up the Malaysian coast and through the infamous Strait of Malacca to the Island of Phuket in Thailand—was Kim Lee, senior editor of the magazine Nautique, published by Raffles. It is a voyage just under 600

Photo: Rick Gaffney



PAE partner Jim Leishman has the con aboard *Nordhavn*. He captained the circumnavigating 40 from California to Hawaii and then again from Singapore to Athens—and grilled more than one mean steak for the crew.

E-MAIL

On seasickness

The NAIAD stabilizers with their new gyro were doing the job so well that when they quit again, it took only five minutes for me to be throwing up over the Portuguese bridge. Let me just say that I almost always get sick at sea. Usually it happens the first day, and that's the end of it. I don't even take pills anymore. Just puke and get it over with. I'm so good at it I can start a sentence, throw up over the side, wipe my mouth and finish the thought without skipping a beat.

— Peter Swanson, PassageMaker

miles, and while offering some of the most beautiful cruising grounds in the world it is infamous for ship-jacking pirates.

Most people we met in Singapore assured us these seagoing muggers rarely molested yachts, yet we remained unconvinced. But for the first 10 miles, our immediate concern was to keep a close eye on our course. Singapore is reclaiming so much of their coastline that the charts are obsolete before their ink dries. However, the shallow areas, in the process of reclamation, were well marked and didn't present much problem in daylight. We found a favorable current setting to the west and a breeze from the northeast, so we made excellent time.

At slightly over 1 degree of north latitude, the air temperature is well into the 90s during the day and drops to the high 80s at night. With the boat moving and with doors and windows open, the saloon and wheelhouse were quite comfortable, however, the lower staterooms required air conditioning, which we ran continuously. For two days and nights we made terrific time, averaging better than eight knots. During the evening the smell of cooking fires was carried from the Malaysian coast and I found myself checking our vessel for trouble before I recognized the source of the smell.

Seeking a little relief from the winds, which had clocked more to the north and created a fairly uncomfortable chop, we decided to make a brief stop on the west side of the island of Langkawi for the night. Not wishing to clear into Malaysia, we stayed aboard and barbecued steaks while taking in the lovely scenery.

Our stop was too brief and we were under way the following morning at 0500. By nightfall, we were approaching the Malaysian Island of Phi Phi, and with only five hours to Phuket we decided to make another stop. Our destination, Boat Lagoon, requires entry on a high tide and the first in daylight was the following day at 1500, so an overnight stop at Phi Phi made sense.

Again we stayed aboard and marveled at the scenery. Phi Phi is famous for its cliffs, rising hundreds of feet from the sea. The many islands in the area looked like perfect movie locales for King Kong or The Land That Time Forgot, and in fact at least one James Bond movie was filmed here.

Dawn hadn't broken when we were jolted awake by the roar of un-muffled engines on the "long tail" boats, used by local fisherman. They take a car, tractor or utility engine of every description and mount it on a crude balancing joint at the stern of these dug-out type vessels, ranging in size from 20 to 50 feet. The engine is directly coupled to a propeller shaft that hangs astern and is about the length of the boat. The prop spins at engine speed and there is no reduction gear, neutral or reverse. The operator hangs onto a tiller arm attached to the screaming engine and controls the whole thing. They seem to do it quite effortlessly and the boats move at surprising speed.

We departed at 0800 and enjoyed an easy five-hour run up to the entrance to Boat Lagoon, entering

LOGBOOK

From:	Singapore, Singapore
To:	Salalah, Oman
Distance:	3,436 nm
Speed:	7.28 knots
Fuel burn:	3.16 gph
Captain:	Jim Leishman
Crew:	Brian Saunders, Paul Grover, Kim Lee (Singapore to Phuket, Thailand)

QUOTE

Talking the talk

"The success of this voyage establishes our company's design and engineering goals, and it will hopefully boost a buyer's confidence to the extent of which the boat has been tested. There are builders who speak about building ocean-crossing-capable trawlers, and then there are those who actually know of what they speak."

— Joe Meglen

the tiny dredged channel at close to high tide. Boat Lagoon is an incredible place, but the three-mile voyage up the channel is stressful the first time you do it. It goes through a mangrove swamp, and just when you think you're lost you see the superstructure of two or three megayachts and then the marina facility with its restaurants, bars, shops and a full-service shipyard, all nicely maintained and attractive. Boat Lagoon is home to three other Nordhavns, including the 62-footer *Feeling*.

Thus far, the notorious Malacca Strait had produced only waving, smiling fisherman and lots of large commercial traffic. It seemed a safe and friendly place.

On February 4 at 1350, after a four-day layover for sightseeing, refueling, provisioning and an arduous inward and outward clearance, we departed Phuket for the 1,600-mile voyage to Male, within the Maldives island group. *Feeling*, owned by Singaporean David Loh, would accompany us to Male where she would cruise until the onset of the southwest monsoon in late April. Departing Phuket we set a course for the Great Channel, which lies between the north end of Sumatra and the India's Nicobar Islands, and then across the southern part of the Bay of Bengal and into the Indian Ocean direct for Male, capital of the Maldives, an island republic of some 1,200 coral Islands.

The Nordhavn 62 *Feeling* runs alongside *Nordhavn* en route to the Maldives (top). Off the Malaysian coast, a commercial fishboat, typical of the fleets in the region, hurries out to sea. Opposite: Some 250 beach-front bungalows on stilts and a staff of 400 await guests at the Bondos Island Resort in the Maldives where the crew enjoyed four days of exploration and relaxation.

The passage was uneventful, fast and comfortable. During the day we would close on Feeling, sometimes to within a hundred yards, and at night our separation would increase to three or four miles. Throughout the day we would talk on Channel 72, and it was comforting to have our big sister constantly in view. Nordhavn twice had 200-mile days and reached Male in just over eight days, averaging 7.7 knots. Arriving after dark, we relied upon our chart plotter and radar, dropping anchor off the west side of Male at 2000. It was February 12.

The Maldives has become a popular vacation getaway for Europeans, and many of the small islands have been developed into self-contained and upscale resorts. Along with David Loh and Feeling, we were invited to be the guests of Bondos Island Resort.

Mohamed Shareef, executive secretary to the managing director of Bandos Island Resort, boarded *Feeling* at Male and guided our two Nordhavns to the island retreat. Bondos is about a half-mile across with about 250 beach-front bungalows and a staff of more than 400. The beaches are of the finest white sand, and palm trees, tropical vegetation and flowers cover the island. The resort generates its own electricity, has a desalination plant, provides water taxi service to Male and the airport island of Huhule, and operates excellent restaurants, bars and shops.

The resort management allowed us to use their harbor, a tiny man-made facility providing shelter for the dozen or so resort boats, and also used by the water taxis. The entrance is no more than 75 feet wide and there is breaking surf along the north cut of the channel where the coral has been dredged. It was a white-knuckle ride entering as lots of headway is required

QUESTION?

How does motion of the Nordhavn 40 in a seaway compare to a sailboat?

The motion is not as gentle, since the motorboat shoulders rather than slices through waves, but the motorboat feels more stable and comfortable as there is no heeling. Stabilizers, whether active fins or passive paravanes, eliminate almost all rolling except in beam seas.

— Georgs Kolesnikovs, Trawler World

to maintain directional control. *Nordhavn* surfed into the tiny basin and went hard into reverse to keep from hitting the resort. There were plenty of helpful line handlers and we tied bow to with a mooring line astern to keep us off the seawall. The two Nordhavns dominated the little harbor and created a lot of interest among resort guests.

After four short days in paradise, it was time to resume our voyage across the Indian Ocean.

Prior to continuing, we had to return to Male for clearance formalities, and to pick up a few last-minute provisions and take on fuel for the long passage ahead. Our excellent agent Nash, of Island Sailors, saved us the hassle and risk of fueling outside the harbor in the rough and unprotected general anchorage. Nash got us right up to a clean commercial bulkhead, and a beautiful new fuel truck showed up with a big banner across the front welcoming *Nordhavn* and her crew to the Maldives. We had the local newspaper people aboard as well as a TV crew from the Male TV channel. The fueling went smoothly and we were given a sample of the fuel in a clear container, right off the bottom of the truck.

Ahead was our entry into the Middle East. It had been agreed at the start that we would re-assess the political situation and potential danger as we approached the region. We hoped we could continue on our planned route up the Red Sea. If not, we could head south and round Africa's Cape of Good Hope, but that would add mileage and the weather risk of the Southern Indian Ocean's cyclone season.

On February 16, we departed, cautiously comfortable with our original route through the Suez and into the Mediterranean, and took up a course

PRIMER

Safety gear

Of great concern to PAE was the safety of people aboard *Nordhavn*. Knowing that we would have no more than four people for any one leg, we felt a six-man, open-ocean liferaft would be adequate and a Switlik canister model with hydrostatic release was installed.

An ACR EPIRB was interfaced with the onboard GPS and hard-mounted on the front of the wheelhouse, also with a hydrostatic release. Additionally, we carried an abandon-ship bag, stowed in the wheelhouse. Within it we carried an additional ACR EPIRB with internal GPS function. There was also a hand-held GPS, a VHF radio, antenna and battery pack for the Iridium phone (We can pull it from its docking station), two gallons of fresh water plus a hand-held PUR water maker, fishing gear, flashlights and flares. We also had four immersion suits for cold water. The liferaft was mounted an adequate distance from the ship's dinghy (in case of fire) and our plan was to try to launch both in an emergency.

A Para-Tech sea anchor to be deployed off the bow was included for an emergency engine failure or to ride out a storm while conserving fuel. We carried a Para-Tech drogue which can be deployed astern in very heavy weather to enhance direction control and slow the boat down.

— Jim Leishman

for Salalah, Oman, 1,377 miles to the northwest.

The Indian Ocean continued to provide ideal conditions, light winds out of the northeast and mild seas. With clear skies and temperatures in the low 90s, we were glad to have our air conditioning, which kept our staterooms a cool and dry 70 degrees. The gentle breeze flowing through the open doors and window of the saloon and wheelhouse kept temperatures within the upper decks comfortable. These ideal conditions allowed for plenty of rest, and the galley and aft deck barbecue were in constant use.

Brian Saunders emerged as the official ship's chef, however, he acknowledged my barbecuing expertise, and the cocktail hour usually began about the time the Magma was lit. With comfortable reclining chairs, a balmy breeze, setting sun, dinner on the grill and a cool beverage in hand, voyaging– and life–didn't get any better.

Each morning Brian and Paul Grover would monitor prearranged frequencies on the SSB to receive information from sailboats around Salalah. We were hearing more and more discussion of boats leaving Salalah in convoys, that there were some 30 yachts anchored and waiting to depart, and talk of German navy ships gathering at the southern end of the Red Sea. To enter the Red Sea we would have to pass through the Gulf of Aden and clear Socotra Island, just west of Somalia and the Horn of Africa, which has been a dangerous area for years with many reported pirate attacks. A course to Salalah

PRIMER

Do you have adequate range to reach your destination?

Crossing an ocean in small motorboat is much like flying across a continent in a light airplane. You want to be absolutely certain of how long you have before you must refuel.

One of the chief challenges of crossing an ocean in a trawler yacht is the careful management of speed and fuel consumption. It's a vital function that leads to great satisfaction at the successful conclusion of a long passage.

Our circumnavigation underscored the importance of knowing the range-speed capabilities of your particular vessel. It demonstrated that tank tests are just tank tests and computer predictions of range are merely predictions—and only for calm conditions.

BC Research in Vancouver tank-tested a scale model of the 40. In the test configuration, the predicted weight was a 1/2 load displacement of 40,000 lb. BC Research produced a range graph that indicated an economical speed of 7 knots would give a range of up to 4,000 nautical miles.

In real life, the circumnavigating 40 weighed in at about 52,000 lb at the beginning of a passage. Additionally, the test model was not fitted with stabilizing fins, bow thruster tunnel, or wing engine shaft, strut and folding propeller—nor was air conditioning running.

Prior to the passage to Hawaii, I spent a considerable amount of time testing our boat. The N40 fuel system has a supply reservoir that is designed to allow precise fuel-consumption checks over 15-minute intervals. Running at 1,400 rpm, we averaged 6.3 knots in moderately calm water and consumed 1.9 gph. At 1,500 rpm, we averaged 6.7 knots at 2.2 gph, and at 1,600 rpm, 7 knots with consumption at 2.6 GPH. We had run the boat all summer to and from Alaska primarily at 1,800 rpm burning about 3.6 GPH and making about 7.8 knots. (The boat was always lighter for the Alaska cruise).

There is a significant difference in performance from the extreme load condition where I conducted the tests and the predictions developed by BC Research. As far as I can figure, the difference in weight can explain a lot. Using a standard formula of performance calculation, I found that by increasing the weight of the vessel from 40,000 lb to 52,000 lb, the prediction of horsepower to drive the boat at a S/L ratio of 1 (5.95 knots) will increase by 30 percent. At 6.54 knots and 7.14 knots (S/L 1.1 and 1.2) the increase is 32 percent.

Here are the numbers:

Boat speed	5.95 knots	6.54 knots	7.14 knots
Speed/length ratio	1.0	1.1	1.2
BC Research prediction at 40,000 lb in shaft horsepower	18.9 shp	23.80 shp	37.80 shp
Adjusted using standard formula for 52,000 displacement in shaft horsepower	24.9 shp	31.45 shp	49.95 shp
Tested performance prior to passage in shaft horsepower	32.0 shp	40.00 shp	56.00 shp

Comparing heavy weight calculation with the actual, we see a 28 percent increase in actual horsepower required at 5.95 knots, a 27 percent increase at 6.54 knots and a 12 percent increase at 7.14 knots.

There is no calculation to predict the drag of the active fin stabilizers, the bow thruster tunnel or the wing engine shaft and prop. The stabilizers are the biggest drag component with two 6-square-foot fins (total 12 square feet) deflecting up and down through an arch of about 60 degrees. These fins not only induce significant drag while running as the hydraulic pump, which drives them, consumes 6.5 full horsepower from the main engine. The power consumption accounts for an additional fuel burn of about .325 gallons per hour—at any RPM selected. In moderate offshore sea conditions at 6.5 knots, with the fins turned on, the speed can drop as much as 1/2 knot to 6 knots which is almost 10

added distance to our voyage but offered a convenient and safe port, the opportunity to arrange a convoy with other yachts headed up the Red Sea, plus, we could maintain maximum clearance from dreaded Socotra Island.

The weather continued fair, and as each day passed we began to notice the air cooling slightly. The evenings were now into the high 70s and we found it was no longer necessary to run the air conditioning. Each night we were given a remarkable show of phosphorescence–brighter than any I've ever seen. Maybe associated with this light phenomenon, the water teemed with flying fish and at night *Nordhavn* was pelted by them, leaving small marks where they hit the cabin and hull. Many stranded themselves on deck. Some, attracted by the light, would fly right into the open wheelhouse doors, and one even glided through the saloon and crashed in the lower passageway to the staterooms. Squid also attacked our boat after dark, with a particularly large one spraying the whole starboard side with reddish brown ink. A forensic review in the morning suggested he must have shot out of the water and hit the paravane pole, bursting on impact. It took an hour to clean up the mess.

After eight and a half days of easy running we called for an entry clearance with the Salalah Port Authority, and were authorized to enter the inner har-

Visual fuel check backs up electronic metering.

percent. At lower speeds, frictional or drag resistance is the primary force to overcome. As speed increases up to 1.2 to 1.3 times the square root of the waterline (speed-length ratios), the primary resistance force to overcome shifts to wave-making, thus, we see only a 12-percent reduction in performance at 7.14 knots. Drag from these appendages is not hurting us as much at higher speeds.

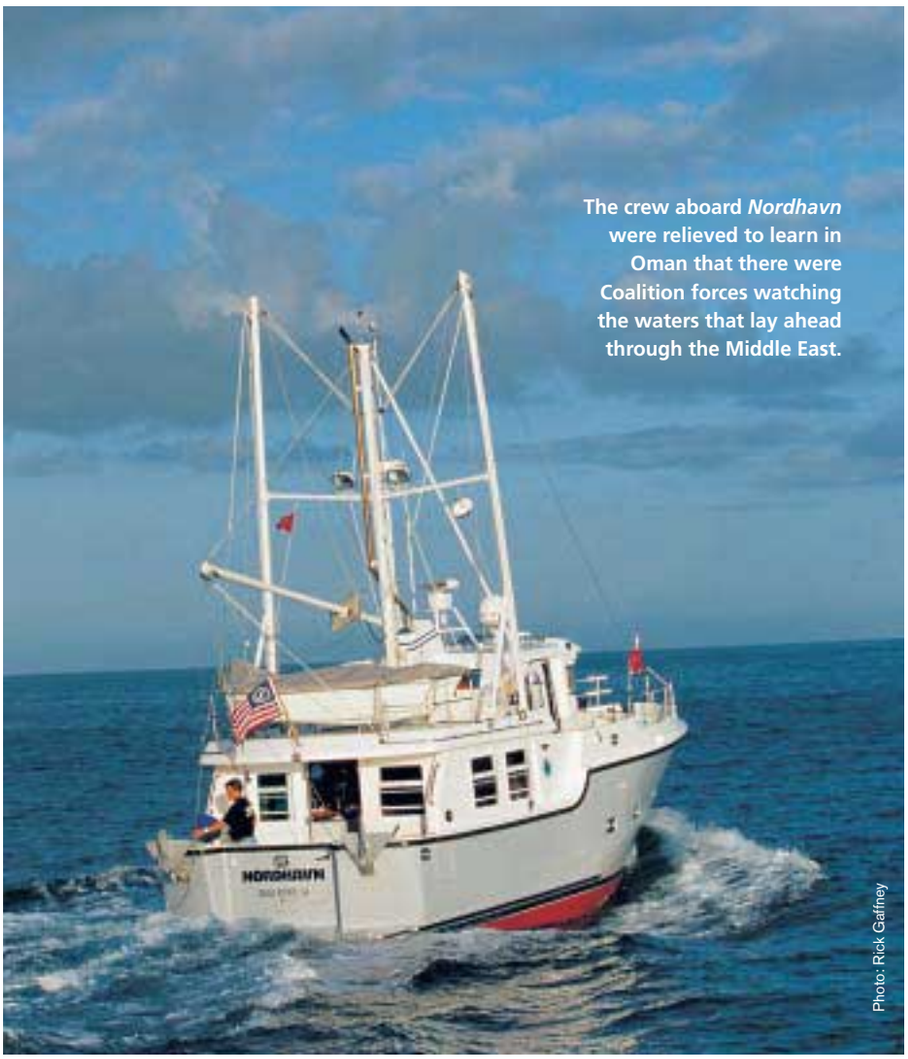
Another big consumer of power are alternators, which are known to be very inefficient. I have heard it said that a DC alternator is only about 38 percent efficient—which means that for every horsepower consumed by the alternator, only 38 percent of that power is converted into wattage. In other words, to produce one horsepower of wattage (750 watts) 2.6 horsepower has to be delivered to the alternator. On our around-the-world boat, with the large freezer aboard, I estimated that we consumed an average of 70 amps of DC power, 24 hours a day: 70 amps times 14 volts equals 980 watts is 1.3 hp multiplied by 2.6 equals 3.4 hp, plus there is inefficiency due to the belt loss. I suspect that the alternator is drawing approximately 4 hp, again adding about a quarter of a gallon per hour top our fuel burn. As with the hydraulic draw—maintaining 1200 PSI of pressure, regardless of whether the fins are moving or not—the alternator draw is consistent and, at lower power settings, the draw becomes a larger percentage of the fuel consumption. At the long-range speed of 1,400 rpm, our 40 runs a little over 6 knots, burning about 1.9 gph. At this low speed, the power draw of the alternator and hydraulics account for over 27 percent of the fuel consumption. Out of the 880 gallons of fuel consumed on the Dana Point to Honolulu voyage, 237 gallons went to hydraulics and electrical demands! That certainly isn't anything we learned from tank testing.

Another area of interest lies within the propeller selection. We spin a 4-bladed 28-by-24-inch prop. A huge amount of effort has been put forth to make the boat as quiet and smooth running as possible. Over the years, we have done testing on propellers and found that a 3-bladed prop will give better performance at lower (ocean-crossing) speeds at S/L between 1 and 1.2. Above that, the 3-bladed propeller becomes more highly loaded and begins to cavitate. Normally, Nordhavns are run at an S/L ratio of 1.3 (for the 40 this is just under 8 knots) and the 3-bladed prop offers no advantages and is quite noisy. We installed a 3-bladed prop on *Salvation II* for the final leg of her circumnavigation from Hawaii to California. The 3-bladed prop gave a 20-percent increase in *Salvation II's* range at 6.5 knots, however, it was subsequently removed and the 4-bladed prop was reinstalled for coastal cruising to reduce vibration and cavitation. I did order a new 3-bladed 30-by-24-inch prop and tested in on the 40 just prior to our departure. We noted an increase in performance of about 10 percent, but also noticed the characteristic vibration, which was anticipated. Despite the performance improvement, I reinstalled the 4-bladed propeller in the interest of a quiet and vibration-free boat. The point of this is that the BC Research predictions were based upon achieving propeller efficiency of 50 percent. I don't believe we are achieving that with our present propeller selection and I don't believe that we can, unless we're willing to accept noise and vibration.

To recap: We have a much heavier boat than what was originally tank-tested.It has a lot of drag because of the accessories we install to make voyaging safer, more comfortable and easier. We have been aware of the effect of weight and drag on all of our vessels and find that oceans are crossed at much lower speeds than what the same vessel makes during coastal passages.

One of the reasons we took on the challenge of a circumnavigation was to develop better methods of prediction that take into account the true performance of the modern, well-equipped vessel but also to understand the effects on performance that the wind and sea have out on the open ocean.

— Jim Leishman



The crew aboard *Nordhavn* were relieved to learn in Oman that there were Coalition forces watching the waters that lay ahead through the Middle East.

Photo: Rick Gafney

bor. We dropped our anchor the morning of February 25 and were promptly cleared by immigration, customs and the port police, all of which were kind enough to come out to the boat. The whole process took less than 30 minutes.

Nordhavn and about 30 sailboats were corralled into a small section of the inner harbor, each yacht clearing the other by less than a boat length and all swinging together on single bow anchors. It wasn't long before sailors (some of whom we had spoken to on the SSB) tendered by, curious about our voyaging motorboat and to offer helpful information about Salalah.

Oman is reported to be one of the richest countries in the Middle East, and the port of Salalah is a small but bustling terminal with room to load and unload up to about 10 large cargo ships. There are modern container cranes along with traditional single-arm cranes for the handling of non-containerized freight. One seawall is reserved for the traditional Dhow-type cargo vessels of wood construction, some carrying chickens and goats. One old woody arrived carrying hundreds of tons of smelt-like fish, all packed into burlap sacks and stinking beyond description. The stevedores unloaded the ship by hand and stacked the foul bags into waiting trucks, overloading them to the very top of their cargo fences. I later learned these fish were used to feed beef and dairy cattle, and that the local beef was tainted with a fishy aftertaste. Thank goodness for our well-stocked deep freeze.

We also learned that the favorite restaurant and gathering place for the yachting crowd was an easy walk from the port and that they served good food (imported beef) and good drinks. The restaurant was aptly named The Oasis and buzzed with activity late into each evening.

After dinner at the restaurant, Brian and I met some British sailors returning to the navy supply ship Fort Rosari. That morning the British aircraft carrier Illustrious, a small British frigate, and the Fort Rosari had entered the harbor and moored along a quay near the yacht anchorage. Two other British frigates had moored in another part of the harbor. We talked a bit as we walked and were soon invited aboard the Rosari for a nightcap with the sailors in the crew's lounge. The crew of this British ship were merchant marine and supplied the carrier and frigates with ammunition, fuel and general supplies. We spoke at length with the second officer of the ship and expressed our concerns over security. He could not say where they had been or where they were going–only that they were part of an international coalition for the prevention of terrorism. He assured us, however, that the Arabian Sea, Red Sea and the Mediterranean were safe and we had nothing to worry about.

Later, lower ranking crew in that smoke-filled lounge told us the waters were thick with coalition warships–German, French, British, Italian and American. As well, they said, aircraft were in the air 24 hours a day and if we keyed our VHF on 16–called a mayday–there would be aircraft overhead within minutes. We were elated with the news and by morning it had spread throughout the anchorage. All the following day cruisers were inviting the British crew out to their yachts for drinks and snacks.

We enjoyed our stay in Salalah, the weather was pleasant and the people were all friendly. The terrain is arid, resembling the coastline along the Sea of Cortez, and I found the cooler, dry air refreshing after weeks in the tropics. The town of Salalah was mostly new with a prosperous look and feel, and we found modern well-stocked markets for re-provisioning. More than once on the way to town, the taxi had to slow to allow free-ranging camels to cross the road. The driver explained that they had little use for camels these days, but treated the animals with reverence for their past contribution to Arab society.

All was ready March 2, and we left Salalah for our next stop Djibouti, 730 miles west-southwest.

Suez pilots go by the book

The cruising guide was right: First thing he said was: "Okay, Captain, full speed, full speed." Second was: "Some cigarettes, please."

By Jim Leishman

Nordhavn **was able to buy clean fuel all the way around the world, including here in Djibouti.**

This leg would take us to the Red Sea and through the Suez Canal, one of the most anticipated parts of the entire trip, but we would have to put our excitement on hold.

Although we were bound for Djibouti, that wasn't our original destination. Plans had called for the next stop at Massawa, Eritrea, however, two days out of Salalah our stabilizers began to act up and I found that the gyroscope which controls the system had failed. We had never seen this type of failure before and did not have a spare unit aboard. A new one had to be ordered and it could not arrive in Salalah in time, so it was sent to Djibouti, about 10 hours out of our way.

Although little more than a port, Djibouti's location at the crossroads of Europe, Africa and Asia gives it significant strategic importance. It's said that Djibouti was colonized by the French to thwart British ambitions across the waters in Yemen. The French influence is apparent in the town's architecture, French is widely spoken and the French Foreign Legion maintains order and provides security for the country.

With the exception of a few nights at the yacht club and a little sightseeing during one day, I spent the entire time trudging around clearing in, clearing out, chasing down our gyro, and fueling. Poverty appeared widespread, and while we wished the best for the people of Djibouti, we were elated to be clear of the harbor March 10 with a full load of fuel and a mechanically perfect vessel. We felt secure again being back at sea.

Our first challenge was the narrow Strait of Bab el Mandeb, the real entrance to the Red Sea. In addition to heavy shipping traffic and a little piracy, the 12-mile passage between Djibouti and Yemen is known for strong southeast winds and steep seas and *Nordhavn* got a first-hand experience of what 40 knots can do in the narrow straits and shallow water. For the first two days out of Djibouti we had rough seas. Then, just as predicted in every-

LOGBOOK

From:	Salalah, Oman
To:	Port Said, Egypt
Distance:	2,106 nm
Speed:	6.82 knots
Fuel burn:	3.08 gph
Captain:	Jim Leishman
Crew:	Brian Saunders, Paul Grover, Peter Swanson

PRIMER

Politics and security

When September 11 brought life temporarily to a halt in America, our plans for the circumnavigation were firmly in place and news stories were appearing about the voyage. September 11 led to a couple of weeks' pause and reconsideration. We'd be passing through the Philippines, Malaysia, and would have to enter the Red Sea through its 20-mile-wide southern entrance, with Somalia to our south and Yemen to the north. We would take on fuel in Djibouti, then have to run a thousand miles with Sudan and Egypt to port and Saudi Arabia to starboard and then pass through the Suez Canal before we entered the perceived safety of the Mediterranean. Despite our concerns, we believed it to be safe and with great enthusiasm we proceeded with our plans.

— Jim Leishman

British naval officers (whom we met in Oman) promised our crew that all we needed to do is cry for help over Channel 16 and the ships of the anti-terrorist Coalition would come immediately to the rescue. The way they said it made us think they were hoping someone would mess with one of the cruisers. Much has been written about the dangers hereabouts, but this may well have been the safest time in history for small boats to transit the area.

— Peter Swanson, PassageMaker

thing I've read about the Red Sea, the winds slowly decreased and dropped off to a calm at the midway point before slowly filling in from the northwest and building up to 30 knots as we approached the Gulf of Suez.

We arrived in Suez City on Monday, March 18, at about 1800, just before dark. The strong north wind that plagued us for the past three days finally let up and most of Monday was calm, giving us time to clean the boat. We contacted our pre-arranged agent, Felix Maritime, and were greeted in front of the Suez Yacht Club by Ahmed M.A. Ghany. From the yacht club tender he assisted us in taking the fore and aft mooring buoys and securing the boat. Having cleared into Oman and Djibouti by myself, I can attest that hiring an agency to do the footwork is well worth the minimal cost. Ahmed came aboard, collected our ship's documents and passports. He advised us that a surveyor from the canal authority would measure the tonnage of the vessel, and that we could fuel and pass through the canal the following morning. A vessel capable of 8 knots could navigate the entire 118-mile canal in one day.

At 0700 Tuesday, Ahmed was back aboard with the surveyor, and within half an hour the boat was measured and we cast off the moorings to fuel. Suez was the first fuel dock we had seen since Thailand and we'd become accustomed to taking fuel from trucks on the quay. At about 0900 we picked up our pilot and were on our way through the amazing Suez Canal.

I've passed through the Panama Canal several times, but this was my first Suez transit. I found it just as fascinating. The product of French engineering and Egyptian labor, the canal opened in 1869 after a decade of construction. It is the longest canal in the world without locks and cuts through three lakes, which take up some 18 miles of its length.

Our first pilot, Mohamed, immediately took the helm and would not relinquish it throughout his leg, which was about two-thirds of the way up the canal to Ismailia. We'd been studying the Indian Ocean Cruising Guide, which contained a photo of a pilot steering the author's sailboat. The quotation reads: "For the most part, the pilots of the Suez Canal are courteous and diligent although they will always nag you to 'go faster, go

QUOTE

"Osama bin Laden, Osama bin Laden," the radio squawked over Channel 16 as we steamed off the coast of Oman. "Thees ees George Bush. I am looking for you." A bored Arab fishermen was amusing himself and presumably the radiomen of the Coalition fleet that was indeed looking for bin Laden just over the horizon. It was certainly more amusing than when he later keyed his mike to share pop Arabic music with us."

— Peter Swanson, PassageMaker

A major mosque in Suez, horse-drawn delivery in Port Said, camels everywhere in the Mideast, and paperwork for the Suez Canal transit.

faster' and will always be offended at the meager baksheesh you offer."

Sure enough, we got the same guy and I showed him his photo in the book. He laughed and nodded. First thing he said was: "Okay, Captain, full speed, please, full speed." The second thing was: "Captain, some cigarettes, please."

He would have nothing to do with the autopilot and insisted on hand-steering for eight hours while smoking a whole package of cigarettes. Trying to get these guys not to smoke in the wheelhouse would probably be impossible, and the concept of formula hull speed and wasted power was incomprehensible to them. Rather than go 8 knots at a reasonable 1,900 rpm, our guy insisted on full throttle,

increasing our fuel consumption by 50 percent while adding only four-tenths of a knot in speed. Upon arrival in Ismailia, the baksheesh thing started. At the agent's advice, I planned to give our man $25 and a couple of shirts. Sure enough, he was appalled. We finally agreed on $35 and four shirts and I thought we were done. "Captain, more cigarettes. Five packs, please," he said before leaving. I gave him one, and didn't feel too good about the process. We later found out that Mohamed is well paid, as are all pilots.

As soon as Mohamed left, our new pilot boarded us. His name was also Mohamed and the process began again. New Mohamed was to take us the balance of the way to Port Said, and we understood that we would run until 2200 or 2300 to finish. At about 1700 our pilot was told we must stop short of Port Said and wait until morning to complete the transit. It was all a bit confusing, but we stopped and tied up at a canal authority dock behind a huge tug boat. Our agent Ahmed and pilot Mohamed stayed aboard with us until dawn and we began again, arriving in Port Said about 1000 on Wednesday, March 20.

In all it was a neat trip. It was awe-inspiring to think of this huge canal having been engineered and dug so long ago. Along the shoreline we noticed evidence of the wars with Israel, in 1967 and 1973, which resulted in the canal's closure between 1967 and 1975. The banks were littered with torn and twisted parts of personnel carriers, landing craft and other machines that were unrecognizable. Notable was the preparation along the entire canal for quick setup of strategic floating bridges in the event of military action.

Egypt appeared thriving, with new construction everywhere we looked. The town of Ismailia was particularly attractive, with numerous resort hotels and palm-lined banks, flowers and manicured gardens everywhere. I hope to return to Egypt some day—particularly to see the Nile River and the pyramids.

But now it was time to push on to the Mediterranean.

PRIMER

Spares

Recognizing the need to keep moving or lose our weather/time windows, it was important that we minimize delays, thus extensive spare parts were brought aboard *Nordhavn*. We were in the unique position of simply being able to advance-order parts which, if not needed, could be installed on a future Nordhavn 40. The usual parts necessary for a long voyage, such as spare fresh-water pumps, bilge pumps, engine belts and filters, all were included. We also carried a spare main engine starter motor, injection pump, injectors, injector tubes, fuel lift pump, and alternators. Additionally, we had a spare steering pump, steering ram, an extra tiller arm, an extra NAIAD hydraulic pump and fin actuator rams, spare hoses for steering and stabilizer hydraulics, autopilot head, autopilot brain box and motor with hydraulic pump, and an extra stabilizing fish, tow line and tow chain in case we lost one of our flopper-stoppers. For a normal owner to carry all these spares, it would represent a significant expense. If it were not for our need to minimize delays, I would have left 75 percent of the stuff at home. PAE has found that we can get spare parts to our customers—virtually anywhere in the world—quickly and cost effectively, thus large on-board spare-parts inventories are unnecessary. Ironically, Mexico is the exception because of the nature of the bureaucracy south of the border.

— Jim Leishman

BACKGROUND

Crew considerations

The total circumnavigation of 24,000 nautical miles was divided into five legs: Dana Point to Singapore, Singapore to Greece, Greece to Barbados, Barbados to Acapulco, and Acapulco to Dana Point. Five separate captains and crews were involved, all key employees of Pacific Asian Enterprises. They generally numbered three, with a fourth berth reserved for journalists covering the voyage or for special guests. The economic justification for the trip was the experience gained by the crew, which included all company owners and designers, three different project managers, the engineer who writes all our operator manuals, and our key sales personnel. The knowledge gained will be used to improve existing boats and utilized in future designs, as can already be seen with the new Nordhavn 43.

— Jim Leishman

March means a mean Med

The air was clear, the sky was blue and the sun shone brightly as we battled 60-knot gusts in a sea that was white as snow

By Jim Leishman

Weather in the Eastern Mediterranean can be a handful in late March, with the transition from winter to summer posing considerable challenges to forecasters and mariners alike. So, it wasn't totally unexpected when our relatively short 600-mile passage from Port Said to Athens was punctuated by heavy weather that delayed our arrival by three days.

Departing Said Yacht Club on Thursday, March 24, we had anticipated moderate northwesterly winds. This passage would take us on a northwesterly course across the Eastern Mediterranean, passing between the islands of Crete and Karpathos, then making our way among the dozens of Greek islands on the Sea of Crete, into Athens. We figured four days.

As soon as we cleared the Port Said breakwater, we were bucking against 25 knots and steep eight-foot seas. Pulling the power back to 1,400 rpm, we resigned ourselves to two or three days of discomfort at five knots, anticipating relief as we approached Crete. In an e-mail, Jeff Leishman, who had been providing weather forecasting throughout our leg using various Internet sources, expressed concern the weather might build into gale conditions. Our weather forecaster, Walt Hack, confirmed Jeff's concerns. He predicted westerly winds to 50 knots and suggested our nearest point of refuge was Kasos, a small island east of Crete.

By Saturday morning we were experiencing sustained southwesterly winds of 38 knots and occasionally higher gusts. We had been recording barometric pressure hourly and saw a pressure drop of 13 millibars in just 24 hours, starting at 1013 and dropping to below 1000—the fastest I've ever seen a barometer fall.

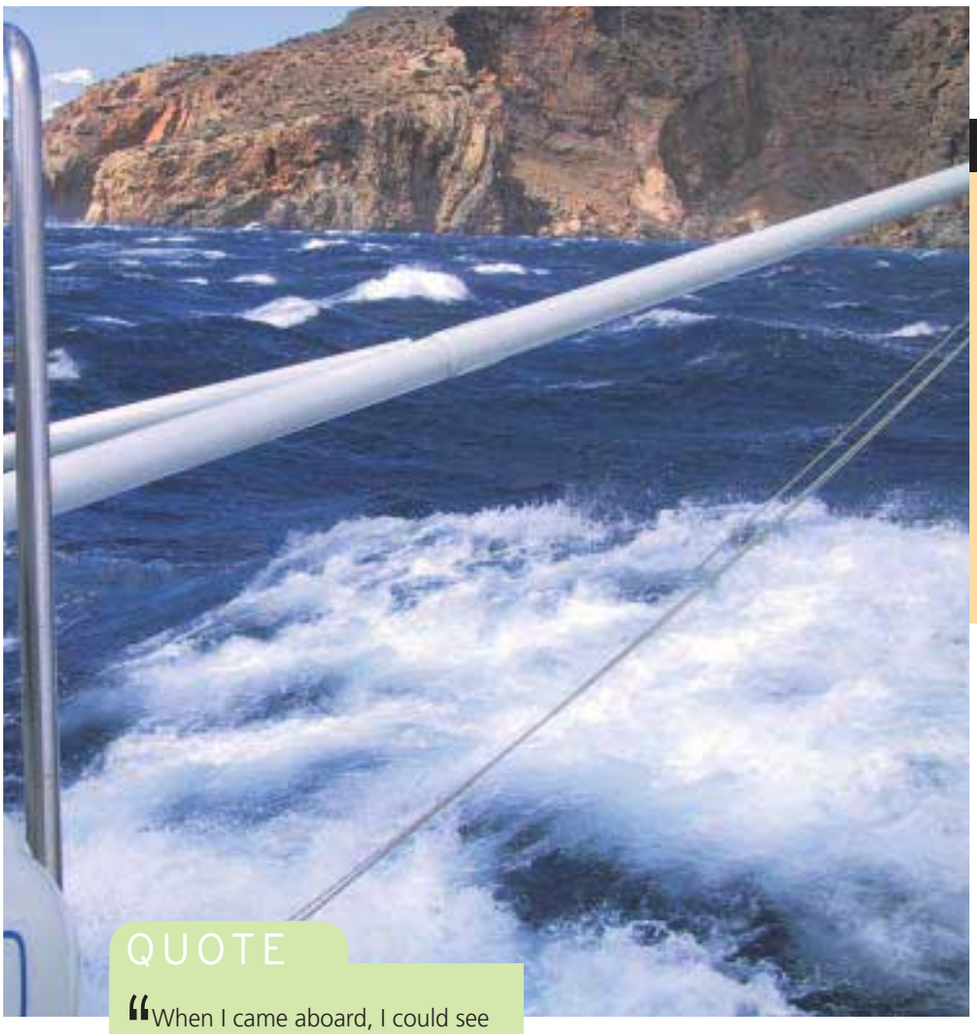
The seas were on our beam, so we were able to keep our speed as we tried to follow Walt's suggestion of finding shelter no later than midnight Saturday. Being half way across the Mediterranean, there was little choice but to push on. We approached a small cove called Helathros on the southwest side of Kasos about 0200 on Sunday. Despite a good radar return and comprehensive charts, I felt uncomfortable with the cove's entrance. The chart plotter showed two rocks just on the surface at the cove entrance and I could not confirm them on the radar. We decided to stand off until daylight and ran up and down the relatively calm lee side of island to maintain steerage and stability. At dawn we made our entry into a beautiful cove and dropped anchor in about 25 feet of water.

The Island of Kasos looks very much like our own California Channel Islands, with high, rocky cliffs.

Around 1100, I decided to make a hot lunch, but just about the time I had the cooking utensils out and the stove going, we got a 30-knot southerly blast of wind straight in from the sea. Within 15 minutes we were seeing 40 knots gusts and the previously calm harbor had four-foot breakers develop-

LOGBOOK

From:	Port Said, Egypt
To:	Glyphada, Greece
Distance:	626 nm
Speed:	6.10 knots
Fuel burn:	2.67 gph
Captain:	Jim Leishman
Crew:	Brian Saunders, Paul Grover



QUOTE

"When I came aboard, I could see that Sue Leishman is a believer in the Joan Kessler philosophy of provisioning for long passages: Shop till there is no more storage space available. Then, buy lots of extra toilet paper."
— Georgs Kolesnikovs, Trawler World

ing. It became very apparent that we could not stay another minute at Helathros Cove.

Brian Saunders pulled the bridle off the anchor chain and returned to the wheelhouse. With the windlass pulling and the boat in gear we moved up on our anchor. I had to use pretty good blasts of power and a fully deflected rudder to maintain directional control, but all went well and the anchor stowed itself in its roller. Paul Grover watched the chart plotter and gave me direction changes to maintain electronic clearance of the entrance rocks, which we never did see.

The amazing thing was the sea condition. The wind was blowing hard out of the west and it wrapped around the island, bringing the seas right into the cove. As we cleared the headland and turned east, we felt and saw the full strength of the wind. The seas were not huge but building by the minute. Our anemometer was showing about 50 knots true and we had numerous gusts up to 60 knots. The tops of the seas were being blown off and creating a sea smoke which blasted off to leeward. The air was crystal clear with bright sunshine and brilliant blue sky, and the wind-whipped foam covering the sea surface was as white as snow.

Our boat handled the following seas beautifully—on autopilot we raced down the island at 1,800 rpm, running in excess of eight knots. Our plan was to go around the island to find a port that faced the north. But we became concerned about the forecasted northerly winds and the fact the strong westerly wind we were experiencing might be just as bad on the other side of the island with its east-west orientation. We considered crossing the channel to the larger island of Karpathos, about 14 miles east, but I was concerned about the building seas and how rough the Med might get in another two hours. We decided to approach the southeast side of Kasos and look for a lee—even if it meant motoring in position and not anchoring.

We got lucky, spotting a cove with high cliffs, a small beach and a sheltered anchorage with about 50 feet of depth. The wind and sea calmed as we approached and we anchored in a beautiful spot. We heard sheep and looked up to see dozens of them grazing on shrubs that cling to the rocky cliffs and ravines.

The storm raged for two more days. On Sunday afternoon we spotted a small cargo ship on the ragged horizon, rolling from gunwale to gunwale. It approached our sheltered cove and anchored in deeper water about a half-mile out, still enjoying the lee and calming effect of the cliffs. I spoke with the Greek captain and at his request I passed on the latest weather forecast that we had received from Walt Hack. The ship was bound for Rhodes from Spain.

His destination was only about 100 miles to the east but he complained that even running with the wind and swell, the seas were too rough to continue on in his 300-foot ship.

Walt finally gave us a green light to proceed on Tuesday morning, and we pushed on in improving but rough weather up to the mainland of Greece, arriving early the following evening at Glyphada, a modern yacht harbor south of Athens. Our part of the circumnavigation was done. ©

PRIMER

Weather watch

Here are the main three sites Pacific Asian Enterprises used during the Nordhavn circumnavigation:

- **NWS Marine Forecast Sites**
http://www.mpc.ncep.noaa.gov/listmarineoffices.html
- **Joint Typhoon Warning Center**
http://www.npmoc.navy.mil/jtwc.html
- **FNMOC Weather Maps**
http://www.fnoc.navy.mil/PUBLIC/WXMAP/

An ocean of trouble

With ship's papers and their passports gone, the crew faced the prospect of the voyage being stalled for weeks 100 miles off the coast of Africa

By Jim Leishman

The Mediterranean

showed no signs of settling down as Jeff, Pete and Justin began their leg, which would take them some 5,200 miles to Barbados, but it wasn't the weather or mechanical failure that would prove the most troublesome. It was the possibility of *Nordhavn*—and the entire venture—being stalled, perhaps for weeks, in an arid outpost in the Atlantic.

For the almost five months since leaving Dana Point, the crews had been beneficiaries of friendly people and generally good service at their ports of call. Good luck ran out at Cape Verde, the final fueling point before the Atlantic crossing. The theft of the ship's documents and crew passports was true cause for concern.

But before dealing with that, the crew had to first contend with the Mediterranean.

After fueling and reprovisioning, and a difficult and costly clearance procedure, *Nordhavn* departed Glyphada to transit the historic Corinth Canal and head west towards the Atlantic. After clearing the six-kilometer-long waterway, most of the next six days were spent battling strong head winds, finally reaching their first stop, Palma De Mallorca. In sharp contrast to the clearance procedures in Greece, those in Palma, which is Spanish, were easy and inexpensive. After only a two-day stop, Jeff and crew reluctantly departed Palma for the Canary Islands, off the west coast of Africa, 1,100 miles away.

Only hours after leaving Palma, a new weather threat showed itself, forcing *Nordhavn* to take refuge at the port of Villajoyosa on Spain's mainland. After a delay of less than a day, they put to sea again in improving conditions, and by the time they approached the Strait of Gibraltar, at the Atlantic entrance to the Mediterranean, the miserable weather of the previous two weeks was finally behind them.

Turning southeast and laying a course for the Canary Islands brought classic passagemaking conditions with breezes aft of the beam, and warming temperatures as the degrees of latitude wound down.

After a pleasant six-day passage, *Nordhavn* tied up at the Texaco fuel dock at Las Palmas, on Grand Canary Island, and received the same hospitality as in the other Spanish ports of Palma and Villajoyosa. A little sightseeing, fueling, reprovisioning, a couple of nice meals ashore and it was time to depart.

On April 21, *Nordhavn* put to sea again, now bound for Praia, on Sao Tiago Island in the Cape Verde island group, the last stop before taking on the Atlantic, the final ocean crossing of the circumnavigation. Located about 1,000 miles south southwest of Grand Canary and less than 100 miles off Senegal, on Africa's Atlantic coast, Praia is the natural refueling port and stepping-off point for the trans-Atlantic passage to Barbados, 2,089 miles to the west. It's the shortest possible route to Barbados and a necessary stop; the only alternative is a 2,600-mile course from Las Palmas.

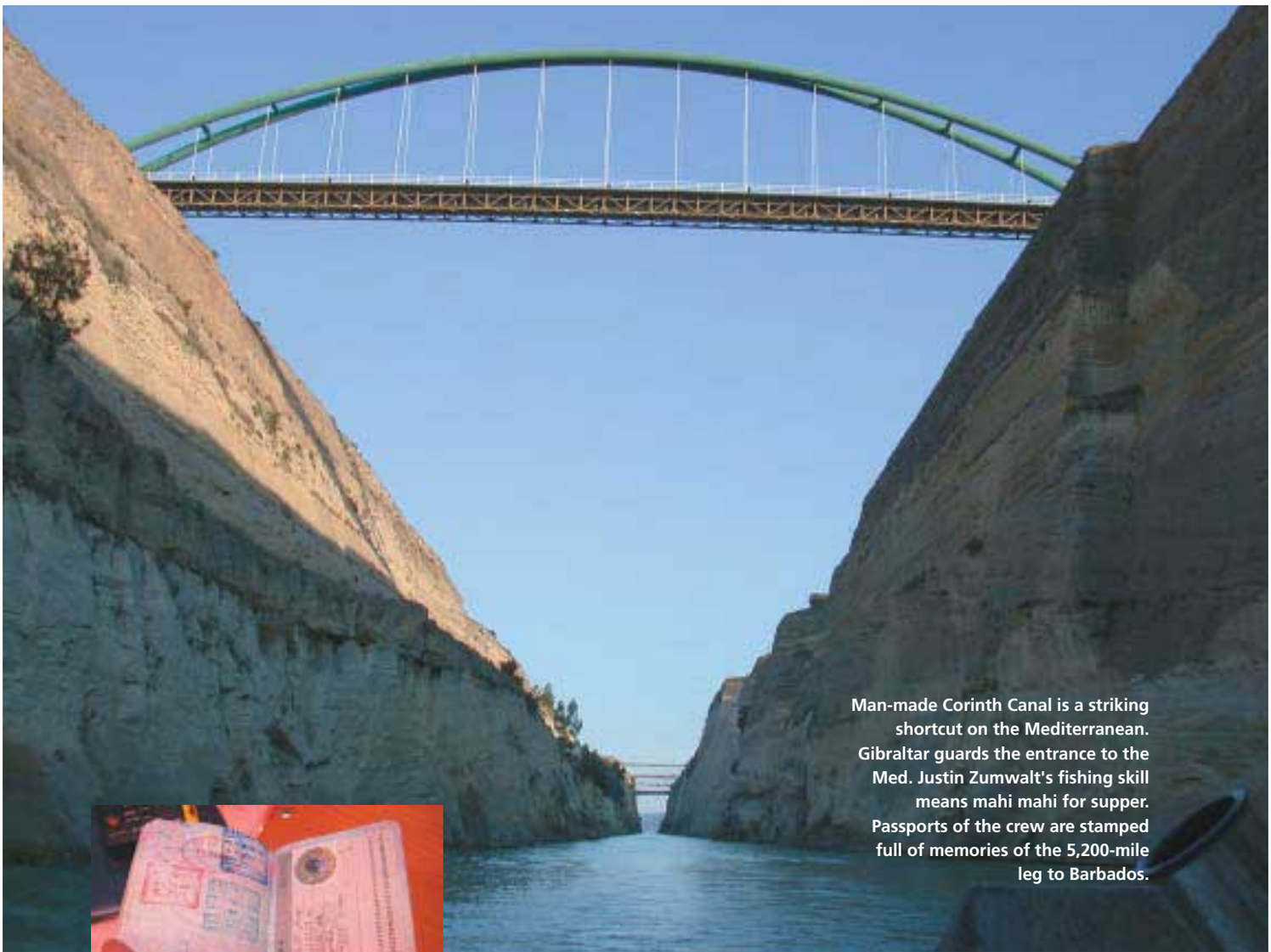
Settled by the Portuguese in the 14th century, Cape Verde became a trading center for African slaves, and present inhabitants of the windblown and arid

QUOTE

"Careful monitoring of fuel consumption, regular re-calculation of range, intelligent adjustments in engine speed, these all make a long ocean passage an intellectual challenge, as there certainly isn't, on most days, much physical challenge in a comfortable passagemaker such as *Nordhavn*."
— Georgs Kolesnikovs, Trawler World

LOGBOOK

From:	Glyphada, Greece
To:	Holetown, Barbados
Distance:	5,253 nm
Speed:	6.39 knots
Fuel burn:	2.78 gph
Captain:	Jeff Leishman
Crew:	Pete Eunson, Justin Zumwalt, Tim Clark



Man-made Corinth Canal is a striking shortcut on the Mediterranean. Gibraltar guards the entrance to the Med. Justin Zumwalt's fishing skill means mahi mahi for supper. Passports of the crew are stamped full of memories of the 5,200-mile leg to Barbados.

islands are descendants of both groups. It proved to be the most difficult port of the entire circumnavigation.

On April 27, after a routine and pleasant six-day passage, *Nordhavn* arrived in Praia and Jeff and his crew set forth by dinghy to deliver the ship's documents and crew passports to immigration, customs and the port authority. Pulling up to wharf side, the crew were offered assistance by a group of young locals. But the moment lines were passed, the quick hands of a helper snatched the document valise from the dinghy thwart and off he went, bolting for the cover of the surrounding shantytown and accompanied by several pals.

Justin, our youngest and leanest crew, gave chase but closing on the thieves he began to realize the danger of further pursuit and returned to the crime scene. The crew was now without passports or ship's documents. The rest of the loss was minor by comparison—about $150 cash and a throwaway camera. If the ship's fuel tanks had been full, the guys could have left for Barbados and probably had new papers and passports waiting for them on the other side of the Atlantic. But with no Cape Verde clearance, there would be no fueling permit. Jeff dreaded the possibility of being stuck for days or weeks in this hostile environment, waiting for new paperwork.

The local police were summoned.

Electronics for passagemaking

Raymarine electronics were selected for the wheelhouse of *Nordhavn* using the latest equipment available in the fall of 2001. Included in the package are primary and secondary radars of 48- and 24-mile range, primary and secondary GPS, video depth sounder plus a second digital unit, large screen chart plotter, wind instruments, autopilot, and VHF. We have an ICOM SSB and an Iridium satellite phone for worldwide coverage plus a KVH TRAC phone which give North and Central American coverage only.

The Iridium phone is connected through a modem to our laptop computer and we can receive and send e-mail worldwide. The baud rate is limited to 4,800 but, for even extensive text messages without attachments, the low speed does not present a problem. We find we can receive eight or 10 e-mails and send an equal amount in one session using about two to three minutes of airtime at $1.50 per minute. Additionally we can receive and send e-mail through our SSB using the more economical Sailmail program. The SSB requires some effort to tune and a suitable frequency has to be found, but limited e-mails can be received and sent for a nominal annual fee of $200.

For navigation, the chart plotter function of the Raymarine equipment included C-Map cartridges for the entire route. Additionally, the new RayTech Navigator software has been installed on our laptop computer and interfaces with all the Raymarine equipment via their high-speed link called SeaTalk. C-Map worldwide charts are downloaded to the laptop's hard drive.

One of the most noteworthy functions of the RayTech Navigator is Raymarine's weather service which we can receive through our Iridium telephone. Through the RayTech program we can download three-day weather forecasts. A region is selected and we receive wind speed, barometric pressure and ocean current predictions, all of which are overlaid on the charts being used on the navigational program. Using an animated process, we can scroll on our computer screen through the forecast period and see the weather unfold for the next 72 hours—with the isobars, wind barbs and scaled current arrows clearly showing us what to expect.

We have two GPS units permanently installed and an A-B switch allows us to select one of the two to drive the Raytheon chart plotter and to provide navigation data to the laptop computer. For back-up, we carry a second laptop with all software installed. We have one additional hand-held GPS with a power and data cord.

We are using Raymarine's G-Series autopilot with an integral rate gyrocompass, and we have another complete unit as a spare. As a safety precaution, we have a full assortment of paper charts, but no sextant.

— Jim Leishman

There was nothing left for the crew to do but wait and ponder their fate. Events were not long in unfolding. Within minutes an exhausted Cape Verdian appeared with the valise, explaining he had chased down the villains, recovered the invaluable case and was returning it. It was intact except for the money. Jeff was so happy he tipped the hero generously for his good deed, and our crew proceeded with the process of clearing in so they could quickly clear out.

Weeks later, Jeff developed the photos in the disposable camera and found that the gang had taken a few photos of themselves. Our "hero" was among them!

For weeks I had been watching the Atlantic weather and while storms had been raging around the Azores to the north, our westward route between 10 and 15 degrees of north latitude had been excellent, with easterly trade winds of under 20 knots and little variation in conditions.

Nordhavn got under way at 16:45 on April 29 after three days in Praia, anxious to complete the final passage of their leg. For the next 15 days we enjoyed 10 to 20 knots of easterly winds, mild temperatures in the 80-degree range and excellent fishing that included landing numerous prized wahoo and dorado.

After the unruly weather on the Mediterranean and the excitement in Port Verde, the crew settled in for a crossing which was so uneventful that Jeff had to apologize for the dearth of reports—just 10 e-mails from the entire crew—and for the boring commentary. "There's just not much to report," he reported more than once. Watch standing, routine maintenance and chores aboard, and reading from the extensive ship's library consumed much of each day. There were always lengthy discussions about the dinner menu, and often extravagant meals were prepared, primarily by Pete, a great offshore cook. With 10 cubic feet of deep freezer space, the ship

E-MAIL

Time warp

Have you ever seen that movie, Groundhog Day, where Bill Murray wakes up every morning to the same day? Somehow, I think we have ended up in the same time warp. No matter what course we steer we have a constant 25-knot head wind, the skies are clear and bright, and the seas are straight up and down at about four-second intervals, day after day after day. However, we are dealing with it just fine and we know that by this time tomorrow we will be out of the Med and, hopefully, mercifully, into a nice northeasterly that will blow right into the Canaries.

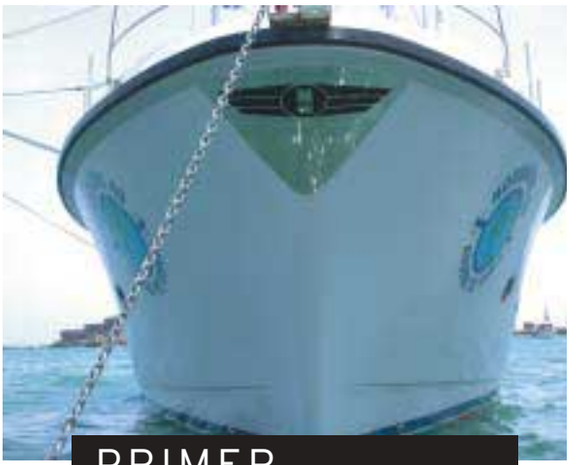
— Jeff Leishman

was always well stocked with excellent meats, pork, chicken and fish.

Only two minor problems cropped up—a failed cooling pump for the stabilizers and a thrown belt on the auxiliary alternator. The belt was easily replaced by shutting down the main engine, and with the wing engine providing propulsion, the belt was changed in a matter of minutes. The failed cooling pump was the last aboard so its replacement had to wait until Barbados, and the paravane stabilizers were used the last three days of the passage.

On May 14, at 12:00, *Nordhavn* took a berth at the Port St. Charles Marina, where a new crew awaited her.

Meals, when prepared as well as they were on *Nordhavn*, are often the highlight of the day during long ocean passages. Jeff Leishman (left) and Pete Eunson dive into a Greek spanakopita nicely matched with a red wine from Greece. On some days, the Atlantic is so benign even the swim platform makes for a fine place to cool off. Cape Verde locals (far left) watch *Nordhavn* being refueled prior to the hop across the Atlantic to Barbados.



PRIMER

Essential equipment

Our boat is equipped with both NAIAD active fin stabilizing and TPS paravane stabilizing to reduce roll offshore. Either of these systems would have been adequate for the voyage, but due to the promotional nature of the trip and the popularity of both systems, it was decided that both would be included.

An auxiliary 27-hp Yanmar engine was also installed. We call it a wing engine and most Nordhavns have been equipped with this option. The wing engine has its own starting battery, transmission, shaft and folding propeller and operates off its own separate fuel supply. In the event of a total engine or drive train failure, the wing engine will give us about 5 knots of propulsion in calm water.

It can routinely be used to keep the boat on course, stable and moving during main-engine fluid checks and maintenance.

Another piece of equipment we considered important to comfort during the circumnavigation was a watermaker. It is very important to us that the boat be kept clean, the laundry can be done and the crew can shower and use water without restraint. We felt that a 110-volt AC watermaker could not always be used on the long passages, as the added fuel consumption of a running generator might not be acceptable.

A large 12-volt DC unit manufactured by Spectra was selected as it can produce 400 gallons of water per day and operate off the main engine's continuous-running DC alternators.

— Jim Leishman

Panama, then head for the barn

The plan was to pack the boat with fuel because the crew intended to run non-stop and hard to Acapulco

By Dan Streech

Within five hours of her arrival, *Nordhavn* was ready for sea once again. She was cleared in and out by customs and immigration, fueled, reprovisioned and the minor work list (change oil and filter, change engine air filter, replace Naiad cooling pump) was complete.

All that remained was the traditional crew handoff dinner and that took place at Angry Annie's**.** It was a raucous affair as Jeff L, Pete and Justin had us in tears of laughter as they reminisced about their two months together moving *Nordhavn* from Athens to Barbados.

The two crews said their goodbyes shortly after 10 p.m., and on the taxi ride back to the boat Mike suggested we leave immediately instead of at daybreak as we had planned. Jeff and I had been thinking the same thing and so, with a balmy and gentle breeze pushing us, *Nordhavn* set off from Barbados just 10 and a half hours after arriving.

Leaving Barbados requires an initial east-northeasterly course for 100 miles to clear the north end of Saint Vincent Island in the Grenadines, and from there a slight turn to the left followed by a straight 700-mile run around the northeast tip of Venezuela. Veer left again and head 350 miles straight into the beautiful San Blas Islands, then follow the coast west for another 110 miles into Colon, Panama.

The Caribbean east of Barbados

LOGBOOK

From:	Holetown, Barbados
To:	Acapulco, Mexico
Distance:	2,689 nm
Speed:	6.91 knots
Fuel burn:	3.84 gph
Captain:	Dan Streech
Crew:	Mike Gregovich, Jeff Merrill (Barbados to Balboa), Kevin Ryan (Colon to Acapulco), Tim Banse (Panama Canal)

E-MAIL

Hook-up!

We hadn't hooked up on any fish in over 15 days and I was beginning to lose confidence. Within two minutes the reel took off: "Zzzzzzzzz"! I was so excited I bashed my head on the door frame trying to leap into the cockpit to grab the rod. Pete was up already and stopped the boat immediately. At first I thought it was a wahoo because I saw something tail walk across the water about 200 yards out. After a 10- to 15-minute battle with the fish, we had a nice 20-lb dorado on board. Looks like we'll have some nice mahi-mahi for dinner. — *Justin Zumwalt*

Jeff Merrill and Mike Gregovich discover what fierce traders the Kuna women are as they shop for molas in the San Blas Islands. A typical San Blas village. Opposite and below: Jeff stands fast waiting for a lock to open. A Panama transit groups various and sundry vessels.

and all the way to Panama is known for its strong easterly trade winds, and the new crew took time to adjust to the 20- to 30-knot breeze and 8- to 12-foot seas. Running down-swell, these conditions are quite comfortable aboard *Nordhavn*, but it still took three or four days before everyone was feeling better. The easterly can get particularly strong in the western Caribbean.

Sure enough, that's just what happened on our first night out as the sea became a witch's brew of confusion. The basic 10- to 12-foot following seas were still there, but at least two additional wave patterns were now in play. Just when it seemed that all *Nordhavn* had to do was slide down the face of one of the 12-footers, a sneak wave would hit us from the side, or the water would simply disappear from one side of the boat.

Where the wave patterns converged, there was a mountain. Where troughs converged, there was a chasm. The poor Naiad fins valiantly swung to full lock, but as good as they are, they couldn't manufacture instant buoyancy and we lurched. We called the event a "stool-tipper" because the loose bar stool that we have in the pilothouse (for sitting at the computer) tipped over with an unnerving crash. With the wind now gusting to about 35, it was quite messy. Off-watch and sitting in the saloon using the other computer, I could look out the back window to see approaching seas above the boat deck or breaking seas level with the saloon windows. Although this cost us about one knot in speed, it was no big deal and actually rather exciting. *Nordhavn* took her lumps stoically and we felt 100 percent safe and secure. Through it all, Mike slept and Jeff played Tommy James on his beloved stereo.

After almost seven days at sea *Nordhavn* dropped anchor within the San Blas Archipelago at 20:00 on May 21.

Surf's up!

We are screaming down waves (OK, maybe yodeling) but, boy, Howdy, these seas are shoving *Nordhavn* as well as a 50,000-pound, big-boned, full-figured girl can be pushed. A big set emerged from behind the boat and I called to Mike to read the top speeds off the GPS. 9.9 knots! Cowabunga, surf's up! Dude, this is totally rad, closest thing to an e-ticket fun ride I've yet to find aboard. I'm sure we must have hit an unobserved double digit figure during the afternoon. — *Jeff Merrill*

Today was a Caribbean sleigh ride as the seas have built and consolidated directly behind us. As the 10- to12-foot seas pass under *Nordhavn*, they pick her up and give her a temporary boost in speed as she tries to grab hold and surf. Several times we saw SOG speeds over 11 knots on the GPS. At times it was a little too much, but we're not complaining. I would much rather be tossed around a little than turn around and face those seas head on. — *Dan Streech*

QUOTE

"I joined the boat in Panama in order to crew during its canal transit. I came away from the experience with a fire burning in my belly: I want to quit my job and go cruising in a trawler."

— Tim Banse, Southern Boating

With heat lightning silently flashing all around us, Mike, Jeff and I sat on the foredeck and toasted the passage with Barbados rum, as we enjoyed the gentle night breezes heavy with moisture and the fragrance of these tropical islands. We could see several islands in the moonlight and looked forward to exploring them in the morning.

I had cruised the archipelago 30 years earlier on my family's 60-foot yawl and promised myself to someday return. I had a vision and a hope for what I wanted and expected the San Blas Islands to be after all these years. Indeed, they were beautiful, exotic, and a small slice of paradise on earth—actually, better than I remembered.

Nordhavn reluctantly left the island group on the evening of the 23rd after two days of sightseeing, which included the purchase of traditional and brightly colored molas from the resident Kuna Indians. The crew dove and swam in the crystal clear waters and lagoons, and rested well after their long, rough passage.

At the daybreak of Thursday, May 24, *Nordhavn* reached the busy port city of Colon, entrance to the Panama Canal. I immediately contacted our friend and agent Peter Stevens of Delfino Maritime Agency to organize the necessary arrangements for the canal transit. Within a couple hours the measurer was aboard and *Nordhavn* was surveyed to calculate her canal fee, and then Pete arranged for slip space at the Panama Yacht Club to await transit. Friday and Saturday were spent provisioning and cleaning, and Sunday morning *Nordhavn* began her transit of the third great canal of the circumnavigation, the previous two being the Suez and Corinth.

As friends and followers watched on the canal Web site (http://www.pancanal.com), Nordhavn was slowly lowered back into Pacific waters under the watchful eye of the Miraflores Locks cameras. Otherwise, it was an uneventful transit.

The Atlantic and Caribbean had proven friendly and easy oceans to cross. With fair trade wind conditions since leaving the Mediterranean, Nordhavn and her crew were about to re-enter the Pacific, the so-called "placid ocean" that had been so formidable just five months earlier.

But first we pulled into the Flamingo Marina to ready for sea. Jeff and one of the hired line handlers went to

San Blas Islands

I very much want to make a stop at the San Blas Islands which I visited in 1971 while cruising with my family aboard Malabar VII. I was 22 years old at the time and was completely fascinated and intrigued by the primitive but gentle and beautiful Kuna Indians who live among the archipelago of several hundred islands. At that time, the Kuna ladies dressed in their colorful molas and abundant silver swarmed our boat in their dugout canoes to conduct barter. The men fished and the happy, carefree children ran naked around the villages of grass huts.

An idyllic vision of unspoiled culture has stayed in my mind since then and I have always dreamed of going back. Despite all of the boat deliveries and travel associated with my job, I haven't returned since. I told stories about San Blas to my children as they were growing up, and several years ago my daughter Erin gave me a book entitled A People Who Would Not Kneel, which is a history of the Kuna Indians. I haven't read it yet, but plan to in the next few days. I am keeping my fingers crossed that I will find a people still unspoiled. What if I find a McDonald's, Internet cafes and satellite dishes? Say it ain't so!

San Blas Islands redux

I had a vision and a hope for what I wanted and expected the San Blas Islands to be. The reality far exceeded it. The islands were beautiful, exotic, and a small slice of paradise on earth. They were actually better than I remembered.

We left *Nordhavn* and took the dinghy to the island in our lagoon, finding a little village on the other side. There were six or eight huts, about 10 naked children swimming in the water, about six women and the "chief." The chief asked for $5 as a landing fee, which we happily paid.

Then the mola trading began. The Kuna women are notorious for their fierce dealings. About 90 minutes and $200 later, we departed with many molas, but the women were tough and never gave an inch. One young lady (about 25) who was oblivious of her three-year-old trying to suck her flopping breast would gesticulate, sulk, pout and argue as I tried to negotiate her price. In the end, I paid full price and the poor child was finally able to lock on for breakfast.

— Dan Streech

the market for some last-minute supplies while Mike and Kevin fueled and tidied up the engine room. I told Mike and Kevin to "pack" the boat and they managed to squeeze in 755 gallons ($1 per gallon) as fuel oozed out of the vents. I intended to run non-stop and hard to Acapulco, a distance of about 1,500 miles, and arrive with minimal fuel on board. Mike referred to me as a "barn-soured horse." With *Nordhavn* now back in the Pacific and pointed generally towards home, one could not help it.

Pete Stevens came aboard and presented his invoice, together with a well-organized three-ring binder containing all necessary paperwork and extra copies of crew lists, passports and such. The Stevens invoice was in a format that was clear and understandable. The bottom line was $1,172, which included the basic $500 transit fee plus the Stevens agency fee, line rentals, taxes and various other small charges. I paid the two line-handlers separately. I highly recommend the use of an agent when transiting the canal and especially recommend Pete Stevens. He can be reached at (507) 261-1931.

For the past four days, poor *Nordhavn* had been a dormitory, cafeteria and public bathroom. As planned, Jeff and Kevin were to overlap so both could experience the canal transit. The stay of guest journalist Tim Banse was to have been a simple overnight event but it stretched to two days due to the transit delay. Add to that the line-handlers, pilot, and various guests—"Do you mind if I use the head?"—and things had started to feel a bit crowded. The red light never came on indicating a full holding tank, but it must have been close.

While we were sorry to see our excellent shipmate and good friend Jeff Merrill and our new friend Tim leave, it was a relief to hoist their luggage to the dock and reclaim our little ship. Dan, Mike and Jeff were now the past and Dan, Mike and Kevin Ryan were clearly the future. The new crew was the one going to sea and we had entered the zone of excitement,

The sun sets as *Nordhavn* departs San Blas for Panama and the finish of the Atlantic leg of the circumnavigation. An abandoned lighthouse and keeper's quarters on the southern tip of Barbados. Yachts and homes are bigger in the Port St. Charles area of Barbados.

E-MAIL

Heat and humidity

We are learning many things from the around-the-world project and much more will come from reflection after the voyage is finished. What I have learned is that the boat (assuming that it is a good boat) is no longer the issue. The modern boat far exceeds the physical and mental strengths of those who operate it.

The No. 1 issue for me is the heat and humidity. It is ever present, insidious and debilitating. Except for time spent in the air-conditioned stateroom, I have been hot since the moment I stepped off the plane in Barbados. My friend Marty Wilson, owner of N6216 *Karma*, scoffs at my complaints and says that in time, one adapts. Fine, Marty, adapt away. I want air conditioning!

— Dan Streech

responsibility, nervousness and dread that comes as you depart on a long passage.

By about 8 p.m. *Nordhavn* was ready for sea. Fuel was loaded, the engine room was thoroughly checked, the food was stowed, the boat was cleaned and the previous four days of slothfulness had been erased. By this time, however, rain was falling, lightning was flashing and an onshore wind of 20 knots was fluttering the Nordhavn burgee. We were exhausted from an exciting day that began at 3:30 a.m. Should we leave? Yeah, let's go!

We slowly motored through the anchorage as Mike and Kevin stowed lines and fenders and made *Nordhavn* ready for sea. With building apprehension, I could see the rain blowing sideways, illuminated by the fluorescent lights on the breakwater. As we passed the fancy sport fisherman which had been our lock partner, I could see them through the big windows enjoying dinner and watching TV. That boat had roared past us at 30 knots after exiting the Miraflores Locks, but then had to slow down after getting into the rough conditions around Flaminco Island. We had almost caught up with them, but didn't and they went on to hog our reserved spot at the fuel dock. I simultaneously envied them and despised a multi-million-dollar boat that couldn't, or wouldn't, go to sea in those conditions. In a replay of the old tortoise and hare story that we see so often, I predicted that humble Nordhavn would beat that gorgeous 2,900-hp gold-plater to Acapulco.

As we rounded the breakwater, we entered a lumpy and confused sea and a radar screen completely full of ships, buoys and islands. We bumped our way through an uncomfortable night of trying to read the movements of various ships while hanging on to bucking *Nordhavn*.

The weather settled down during the night and the dawn brought a beautiful sunrise, smoother seas and fewer ships. I was glad we had left the previous night. We had already put about 70 miles in the bank.

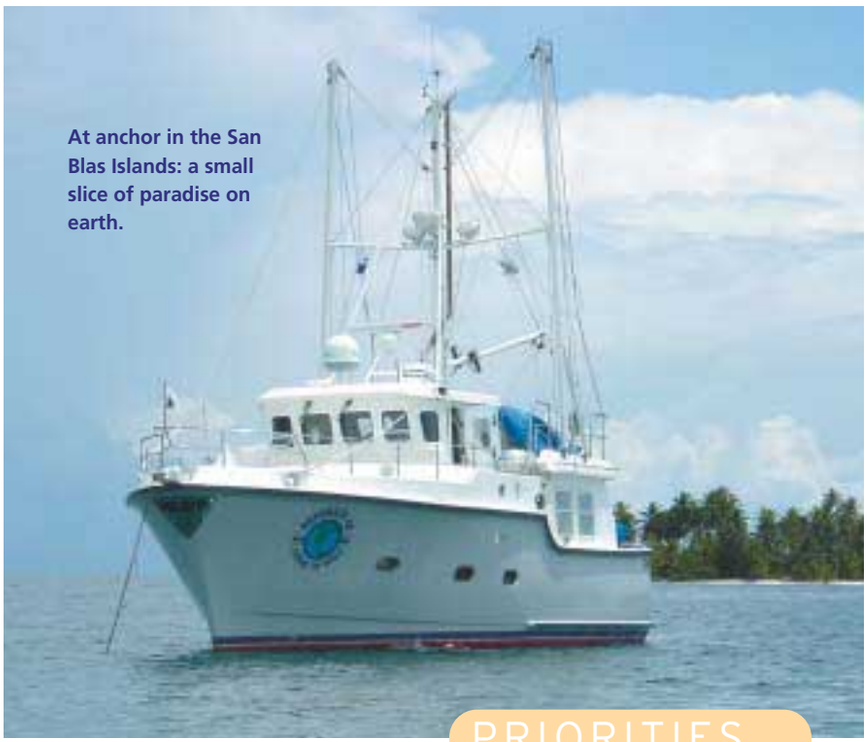
We were now northbound during the beginning of Mexico's hurricane season. All around, huge bands of thunderstorms were forming to create torrential rain, erratic localized winds, and confused and uncomfortable sea conditions. In the intense heat and with water temperatures in the 80s, it wasn't long before numerous bands joined, organized and began to build strength.

On May 28, warnings were issued for tropical storm Alma, the first hurricane of the season.

Nordhavn was still well south of Alma, but we kept a close eye on her, remembering well the week-long battle with typhoon Faxai in the central Pacific last December when that storm turned in directions that had amazed the forecasters. Fortunately, Alma behaved and moved northward well ahead of *Nordhavn*. Then, on June 1, another alarm. A tropical depression developed, but it failed to build to storm status.

We arrived in Acapulco on June 4 after a bumpy and wet, but generally uneventful, voyage.

The task would now fall to PAE partner Joe Meglen, along with sales representatives Dennis Lawrence and Gary Armellio, to make the final 1,500-mile run to Dana Point.



At anchor in the San Blas Islands: a small slice of paradise on earth.

PRIORITIES

Some of you may ask what the heck I have been doing. Well, I make sure the fridge is stocked daily with new beer. This is a job that Dave Harlow taught me well and warned that it was not to be taken lightly. The last thing you want to discover, as the sun sets over the yard arm, is that you don't have any cold beer!

— Jeff Leishman

Panama transit

Our transit of the Panama Canal was for me the highlight of the trip so far, as it was for the others, I'm sure. The crowning moment came when *Nordhavn* was in the front position of the Miraflores lock chamber, and as I stood on the bow talking to my daughter, Kerry, in Key Largo, Florida, with a cellphone in one hand and waving my red bandana in the other, hearing her shout through the phone, "I see you, Daddy!" I don't know who was more excited.

— Mike Gregovich

Editor's note: One of the wonders of voyaging in the 21st century is that you can tell loved ones back home to watch you transit Panama on the live camera page at www.pancanal.com.

Taking cover on the final leg

The Pacific wasn't about to make it an easy finish. First, we had to deal with a hurricane named Boris

By Joe Meglen

A fireboat and other Nordhavns greet the circumnavigating 40 on its return to Dana Point, California.

The weather was cloudy, steamy and decidedly unsettled as we left Club de Yates de Acapulco. Turning west through Boca Chica Strait, we slid past Punta Lorenz and then made our right turn to begin the "uphill" slog. Our plan for this final leg was to hug the coast, picking up a counter current that would allow us to make a quick right turn to a port of refuge if a tropical storm developed.

We were joined for the first part of this leg by guest journalist Courtney Freeman who was doing an article about some of the destination resorts frequented in Mexico by yachtsmen. This would give us the opportunity to stop in a few places that we might have otherwise bypassed. Weather permitting, we planned to stop in Manzanillo (Las Hadas), Bahia Navidad and Puerto Vallarta where Courtney would leave us. Given these stops and *Nordhavn's* range, we planned to top our fuel tanks off in Puerto Vallarta and bypass Cabo San Lucas altogether.

All of this, of course, was subject to change, recognizing the fact we were cruising in hurricane country during the beginning of the season. Senor Marcas, the harbormaster in Acapulco, had cleared us out to Puerto Vallarta.

For the time being the weather was almost embarrassingly benign, with calm and following seas and just enough wind to cool things down, allowing the air conditioning to be shut off.

As we might have expected, the fine weather was short lived. A new tropical depression was developing, and, unlike Alma, this one was behind *Nordhavn* and heading straight at us. On June 8 a warning was issued and our forecaster, Walt Hack, confirmed the severity of the situation.

Jim Leishman urgently advised me to seek shelter at the closest port, Manzanillo. I took *Nordhavn* up about

LOGBOOK

From:	Acapulco, Mexico
To:	Oceanside, California
Distance:	1,511 nm
Speed:	7.30 knots
Fuel burn:	3.96 gph
Captain:	Joe Meglen
Crew:	Dennis Lawrence, Gary Armellio, Courtney Freeman (Acapulco to Puerto Vallarta)

20 miles north, to Bahia Navidad, deciding it offered better protection from the season's second major storm, Hurricane Boris. By June 11, after a three-day wait, Boris had degraded back into a tropical depression and we resumed our northward course, stopping at Puerto Vallarta the next day where Courtney disembarked.

From there, the plan was to run nonstop to San Diego. Weather was rough out of Puerto Vallarta, but there appeared no further threat of tropical storms. By the 14th the rough seas began to subside and *Nordhavn* was making good speed up the Baja peninsula.

During the past few months we had been watching the progress of another circumnavigator, *The Spirit of Cardiff*. This vessel was also trying to set a circumnavigation record, but that's where the similarity ended. *Spirit* was a 33-foot rigid-bottom inflatable which left Cardiff, Wales, at the end of March taking an easterly route, hoping to set a speed record in the under 50-foot class. *Nordhavn* and *Spirit* had passed each other in April on the Mediterranean without making contact, but now on the Pacific we would try to rendezvous. Through numerous e-mails, Clive Tully and Jim Leishman exchanged positions, course and speeds and our two vessels met one evening off the Baja California peninsula.

We took *Spirit* in tow and the crew came aboard *Nordhavn* for a quick dinner. We swapped stories and a few toasts, and they were off as quickly as they appeared.

As the crew of *Spirit of Cardiff* departed, they presented us with a plaque and coat of arms commemorating their trip. We wished them well.

On June 18, we reached San Diego, and the following day *Nordhavn* was moved 40 miles up the coast to Oceanside Harbor, where she would remain until her official homecoming in Dana Point on June 30. During the trip to Oceanside, *Nordhavn* was turned westward and crossed 117.42 West longitude, officially completing her circumnavigation on the 19th day of June 2002.

QUOTE

"One person was on watch, and the remaining three of us were playing guitar, reading a book, and sipping wine, in that order. In the first round of Hurricane Boris vs *Nordhavn*, it was pretty clear who the winner was."

— Courtney Freeman, Yachting

All PAE personnel who took the 40 around the world were on board for the final short hop to Dana Point from Oceanside.

E-MAIL

Circumnavigators rendezvous at sea

We had a surprise visit by *Spirit of Cardiff* and her crew, Alan Priddy, Steve Lloyd and Clive Tully. Our position was N25 50, W113 20, off the coast of Baja California. *Spirit of Cardiff* is a 33-foot hard-bottom inflatable that is circumnavigating, going the opposite direction as *Nordhavn*. If ever we thought the crew of *Nordhavn* was roughing it, those thoughts were quickly dispelled after seeing the vessel that Alan, Steve and Clive are traveling in. When boarding *Nordhavn*, these adventurers thought they were boarding the *Queen Mary* with her spaciousness, engine room, air conditioning, heating system, separate staterooms, wheelhouse, freezer, etc., and we suddenly gained a much greater appreciation for the civilized manner in which we're traveling by comparison. We took *Spirit of Cardiff* in tow while her crew joined us for a few pints and a quick dinner. We swapped a few stories and a few toasts, and then they were off as quickly as they appeared. We do not envy them the balance of their trip and the hardships they have, and will continue to endure.

— Joe Meglen

Footnote: Spirit of Cardiff reached Newfoundland, but after 23,000 miles at sea, the three Welshmen ran out of luck. Steve Lloyd suffered a heart attack. He survived, but while he was recuperating, the boat was damaged beyond what they could afford to repair.

Finally

The circumnavigating Nordhavn 40 was renamed *Finally* when it was purchased by Greg and Deborah Luque, a Connecticut couple who keep the boat in Newport, Rhode Island. They plan to gradually expand their cruising from New England to Florida and the Caribbean.

RETROSPECTIVE

Under sail then, under power now

Nordhavn is in an area (between Acapulco and Panama) that gave us great misery during our family cruise on *Malabar VII* in 1971. I brought the logbook with me to read and have been reminiscing about that epic cruise.

While the basics of seamanship have remained unchanged, so many other things are different that it is difficult to remember how primitive it was three decades ago. *Malabar* was primitive partly because of our tiny budget, but mostly because the gear and equipment that we take for granted today simply were not available for yachts.

In 1971, we departed Salina Cruz, Mexico, on a non-stop run to Puntarenas, Costa Rica, a distance of 750 miles. We had spent the previous five days in Salina Cruz waiting for a Tehaunapecker to blow itself out. Ten days later we finally dropped *Malabar's* anchor at the island of Jesuscito across the bay from Puntarenas.

Before departing Salina Cruz, we took on fresh water (of course, no watermaker) which was a laborious process of lowering five-gallon glass bottles down into the dinghy from the commercial pier, rowing out to *Malabar*, hoisting them onto the deck and pouring them through a funnel into the tank. We loaded four bottles per trip and the process took several sweaty hours.

Nordhavn has a washing machine and dryer and a wonderful large stall shower. With the Spectra watermaker, we have essentially unlimited amounts of fresh water. On *Malabar*, we constantly worried about fresh water. Dishes were washed in salt water and rinsed in fresh. Clothing was washed in a bucket on a washboard and hung out to dry (the loss rate from blowing away was about five percent). Showering was a bathing-suit shower, which took place on the small area aft of the cockpit.

On *Nordhavn* (or any Nordhavn), one has complete confidence in the structural integrity of the boat. Not one second is spent worrying about the hull, the bulkheads, the rudder, engine mounts or windows. On the 45-year-old wooden *Malabar*, I had constant anxiety about the boat breaking up and sinking from under us. The swollen and rusty steel chain plates, the mysterious leak in the garboard seam that got worse and worse, the hogging deck and the questionable rudder. One never knew if the creak, groan or snap that you heard would be the last.

If *Malabar* had broken up and sunk, we would have tried to get into the Avon dinghy, but probably we would have drowned. I cringe when I think back to the danger and risk that we subjected ourselves to on *Malabar*. *Nordhavn*, on the other hand, is a tank which will almost certainly never sink due to simple structural failure. If she should sink due to collision, fire or some unforeseen chain of events, we would (if we had time) call Mayday on two kinds of radios (SSB and VHF), make telephone calls on two kinds of phones (Iridium and Wavetalk) and then launch and enter our Switlik life raft bringing our abandon-ship bag, survival suits, EPIRB, the Iridium phone, handheld VHF, and the handheld GPS. We would probably be rescued within a few hours and then start thinking about the insurance settlement. *Malabar* had no insurance and represented the entire net worth of my parents.

On *Nordhavn*, we always know precisely where we are, down to the nearest 15 feet. We have two GPS units and three different navigation programs, which display on the Raymarine plotters or the computer monitor. We have two radars which can overlay on the plotter to verify landmarks. On *Malabar*, we almost never knew where we were unless we were sitting in port. We navigated by dead reckoning, shore landmarks, light beacons and the occasional radio beacon using our Bendix RDF. We had a sextant, sight reduction tables and an Accutron watch, but our skills at celestial navigation were minimal, and anxiety about our position was constant.

On *Nordhavn*, we sit in a pleasant pilothouse protected from the elements. Our screens, computers, radios, telephones, electrical panels and instruments are arranged in logical order on the upper and lower consoles. One has a sense of security and feels in command of the vessel. On *Malabar*, we sat in an open cockpit and hand-steered the boat no matter what the circumstances. We had an awning for protection from the sun, but in rain, or worse yet, salt spray from beating to weather, we had to wear the hated foul weather gear.

On *Nordhavn*, we are IN the boat, staying within the protection of the Portuguese bridge. On *Malabar*, we were ON the boat protected only by the lifelines. Trips to the bucking foredeck to change sails were always a time of high risk.

On *Nordhavn*, we are nearly always well rested and clean. On *Malabar*, we were nearly always tired and often times delirious with fatigue, and seldom as clean as we wanted to be. One of the overlooked safety benefits of a cruising powerboat versus a sailboat is that on the powerboat you are going to be less fatigued and therefore have better judgment at those crucial times when you need it.

Back to *Malabar's* passage from Salina Cruz to Puntarenas. Nearly all of the deprivations described above occurred on that passage. We motored in blazing sun until our fuel was nearly depleted. We got hit by a Papaguyo, which is the evil twin of a Tehaunapecker. Our main, jib and genoa were all torn. We were lost for two days when Punta Guiones did not appear as we expected. We nearly ran out of water and had to severely ration. And, we had to lay ahull for 12 hours in winds estimated to be over 50 knots while poor *Malabar* issued forth death groans and her leak increased in volume.

As I read the logbook and diaries of that passage (and other passages just as horrendous), I marvel at the optimistic spirit and lack of complaining. Yes, some of the misery was due to our ineptness and poor planning, but most of it was accepted as the norm for that time—only 32 years ago.

— Dan Streech

Circumnavigation of the world by the Nordhavn 40 Nordhavn

Start and finish: Dana Point, California
Time under way: 151 days 3 hours
Time elapsed from November 3, 2001, to June 30, 2002: 238 days 21 hours
Circumnavigation: Outbound and homeward tracks crossed on June 19, after 228 days

FROM	TO	NAUTICAL MILES	HOURS RUN	SPEED IN KOTS	GALLONS BURNED	GALLONS PER HOUR	MILES PER GALLON
Dana Point, California	Honolulu, Hawaii	2,345	388	6.04	860	2.22	2.73
Honolulu, Hawaii	Majuro, Marshall Islands	1,962	308	6.37	732	2.38	2.68
Majuro, Marshall Islands	Kosrae, Micronesia	502	87	5.80	218	2.52	2.30
Kosrae, Micronesia	Pohnpei, Micronesia	297	57	5.20	171	2.99	1.74
Pohnpei, Micronesia	Chuuk, Micronesia	379	47	8.00	141	2.98	2.69
Chuuk, Micronesia	Yap, Micronesia	847	120	7.05	358	2.98	2.37
Yap, Micronesia	Singapore, Singapore	2,235	316	7.07	800	2.53	2.79
Singapore, Singapore	Phuket, Thailand	563	69	8.20	219	3.19	2.57
Phuket, Thailand	Male, Maldives	1,529	199	7.70	670	3.37	2.28
Male, Maldives	Salalah, Oman	1,344	204	6.60	604	2.97	2.23
Salalah, Oman	Djibouti, Djibouti	733	100	7.30	380	3.78	1.93
Djibouti, Djibouti	Suez, Egypt	1,287	198	6.50	517	2.61	2.49
Suez, Egypt	Port Said, Egypt	86	11	7.90	54	4.96	1.59
Port Said, Egypt	Glyphada, Greece	626	103	6.10	267	2.60	2.34
Glyphada, Greece	Palma, Mallorca	1,009	151	6.70	590	3.92	1.71
Palma, Mallorca	Palmas, Canary Islands	1,085	178	6.10	542	3.05	2.00
Palmas, Canary Islands	Praia, Cape Verde Islands	1,034	140	7.40	412	2.95	2.51
Praia, Cape Verde Islands	Holetown, Barbados	2,125	354	6.00	743	2.10	2.86
Holetown, Barbados	Cristobal, Panama	1,237	172	7.20	720	4.19	1.72
Cristobal, Panama	Balboa, Panama	34	11	3.00	15	1.32	2.27
Balboa, Panama	Acapulco, Mexico	1,418	206	6.88	761	3.69	1.86
Acapulco, Mexico	Bahia Navidad, Mexico	320	43	7.50	162	3.80	1.98
Bahia Navidad, Mexico	Puerto Vallarta, Mexico	132	18	7.50	66	3.75	2.00
Puerto Vallarta, Mexico	Oceanside, California	1,059	146	7.25	592	4.05	1.79
Oceanside, California	Dana Point, California	23	3	7.60	9	2.97	2.56
TOTAL		**24,211**	**3,627**	**6.67**	**10,603**	**2.92***	**2.28***

Note: The grouping of legs of the voyage as shown corresponds to the installments of the narrative in this magazine.
** Air conditioning on most of the time.*

For more information on voyaging around the world with *Nordhavn*, visit www.nordhavn.com.

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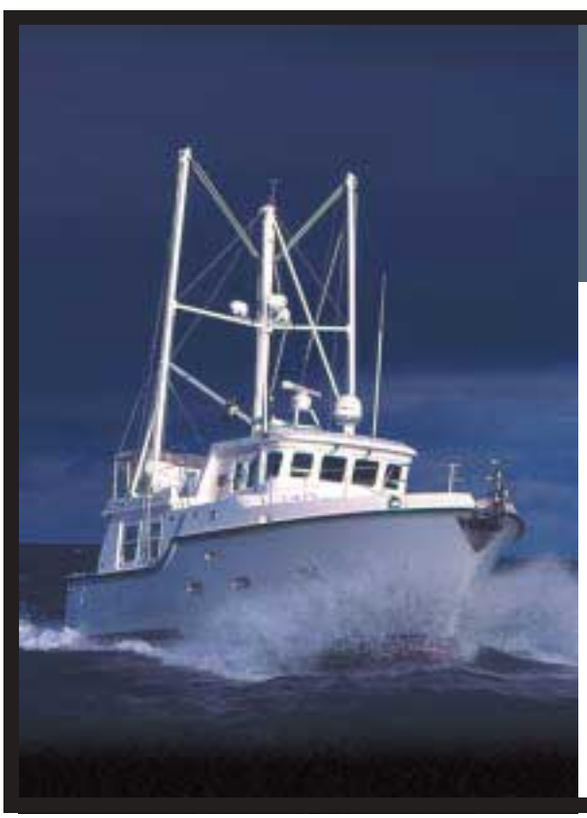

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Trawler transat

A fleet of passagemakers will convoy to the Med

The first-ever trans-Atlantic rally for ocean-going motorboats is a go for next summer.

The Nordhavn Atlantic Rally 2004 is being organized by Pacific Asian Enterprises in hopes the event will tweak the spirit of adventure among trawler yacht owners and at the same time showcase the technical advances in nautical design that make such an event possible.

Beginning in Newport, Rhode Island, in late May, the 3,500-nautical-mile voyage will conclude at Gibraltar after stops at Bermuda and the Azores. Staff from PAE will accompany the convoy in two or more Nordhavns, and provision will be made for coping with medical and mechanical emergencies at sea.

Jim Leishman, vice-president of PAE, said sponsorship of the rally will set PAE further apart from its competitors.

"So many people today have some money and have some time, and they want to do something meaningful. With the rally, we'll be giving them a fabulous adventure," said Leishman. "People want to share adventures, so we'll give them a fleet of boats to travel with. Most people want a little bit of risk but, ultimately, they want to be safe. So, we'll provide an escort and support."

The rally will not be limited to the Nordavn line of ocean-going powerboats; other qualified vessels can take part. PAE will establish basic requirements such as range of at least 2,500 miles at 7 knots.

"Transoceanic passagemaking is a serious business and safety is paramount," said Leishman. "While we will do all that we can to ensure a pleasant voyage, it is up to each captain to be responsible for the safety and conduct of his vessel and crew."

Staff from PAE will also be at each stopover to smooth the way by helping with government formalities, provisioning, fuel, and shore-side group activities.

Plans call for the rally to rendezvous at PAE's Portsmouth, Rhode Island, office in May where each vessel will be inspected for condition and equipment requirements. Weather permitting, the fleet—traveling in two groups according to speed capability and the owner's desire—will leave about May 20 for the 600-mile crossing to Hamilton, Bermuda.

About June 1, they'll set off for Horta, Azores, an 1,800-mile passage that will take between eight and 11 days. The final leg of 1,100 miles is scheduled to start about June 25 for Gibraltar, gateway to the Mediterranean. At the conclusion of the rally, there is a "playground waiting for them in the Med and rest of Europe," said Leishman.

In Europe, participants will have the option of cruising in groups or singly, making the return voyage, or taking advantage of arrangements made by PAE to have their boats shipped home at a discount rate.

While the rally will provide a chance for cruisers to test the passagemaking prowess of their vessels in a fun but secure environment, it will also demonstrate the long-range capabilities of even small, displacement powerboats.

"Advancements in naval architecture and boat-building technology have created a class of full displacement vessels with remarkable sea-keeping abilities and incredible cruising ranges," said Leishman. "We build Nordhavns to make adventure possible and this event will help introduce a whole new group of people to the thrills of transoceanic passagemaking."

Map: Roberta Cooke Voteary

To capture some of those thrills, Bruce Kessler, a circumnavigating yachtsman and retired TV/film director, will accompany the rally to make a documentary film. With the popularity of reality TV and cable outlets catering to outdoor adventure, Kessler and TV producer Jo Swerling Jr. hope to generate network interest with stories of the voyage and its participants.

To learn more about the rally, call PAE at 949-496-4848, or visit www.nordhavn.com.

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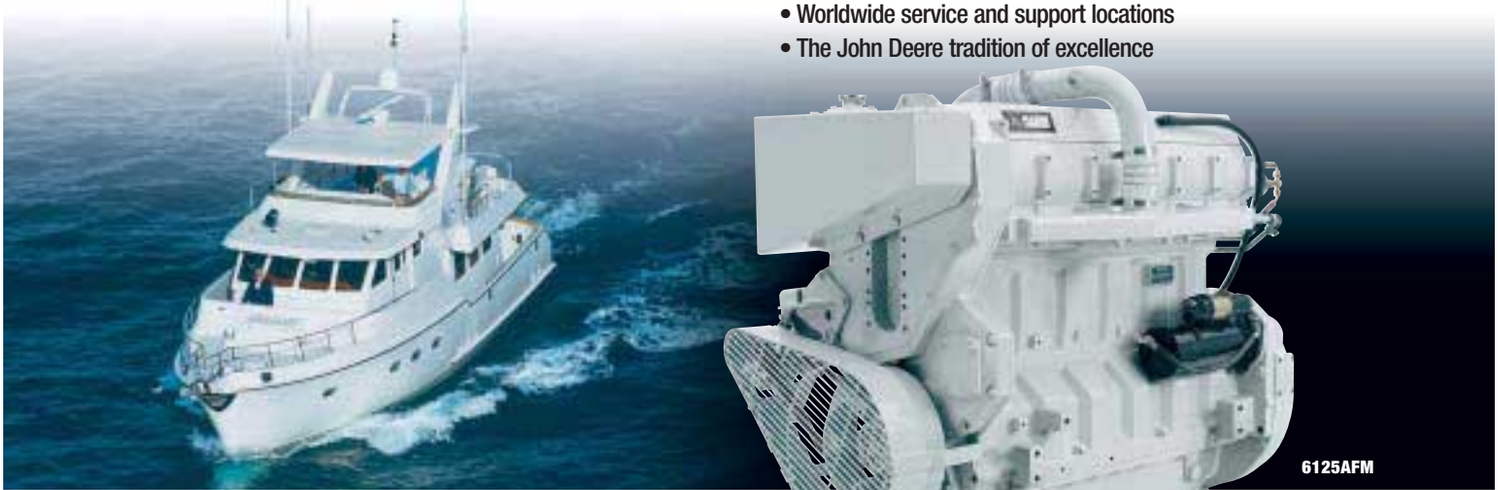

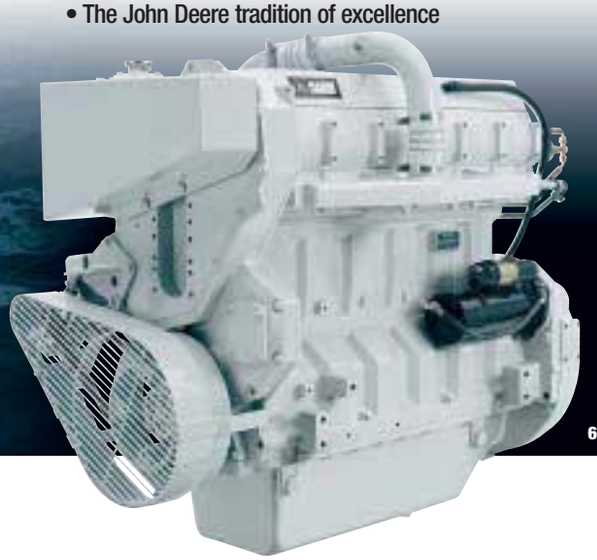

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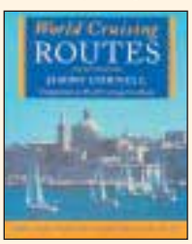
Best Books

10 recommendations for voyaging around the world

By Milt Baker

World Cruising Routes
by Jimmy Cornell

Intended chiefly for sailing yachts but often used by passagemaking powerboats, this book covers almost 1,000 offshore routes and gives good, hard-won advice on when to make particular passages, when to avoid making them, what routes to take, where to make landfall, what charts and guides to use, and seasonal weather. Hardbound, 5th edition, 2002. 640 pages. $49.95.



World Cruising Handbook
by Jimmy Cornell

Not a cruising guide, but a detailed mariner's introduction to 185 countries bordering the world's oceans, seas, and channels. Covered for each country: clearance requirements and procedures, fees, visas and cruising permits, customs and immigration, flag etiquette, language, medical facilities, yacht clubs, currency and culture. Hardbound, 3rd edition, 2001. 566 pages. $69.95.

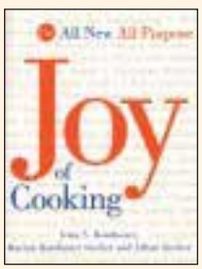
American Practical Navigator
by Nathaniel Bowditch

First published in 1802, it has been the definitive book on navigation for generations of seafarers, and still is carried on the bridge of every ship in the U.S. Navy. Weighing in at almost six pounds, it deserves a place in the library of every serious mariner. Paperback, 2002. 878 pages. $65.

Advanced First Aid Afloat
by Peter Eastman, MD, and John M. Levinson, MD

An enduring and easy-to-use onboard medical reference. Almost every accident or ailment that might occur on board is covered using layman's language. Easy step-by-step instructions allay panic and take the reader calmly from diagnosis, through treatment, to nursing and recovery. Paperback, 5th edition, 2000. 218 pages. $16.95

Joy of Cooking
by Irma S. Rombauer (et al)



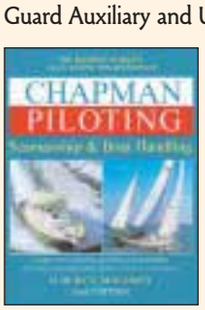
If you can have only one cookbook onboard, forget the galley guides and make this the one. Offering easy-to-follow advice on food preparation for the experienced chef and novice alike, this four-pound book covers everything from abalone to zucchini and hors d'oeuvres to dessert. Hardbound, 1997. 1,136-pages. $35.

Boatowner's Electrical and Mechanical Manual
by Nigel Calder

Generally accepted as the best book ever published on fixing electrical and mechanical equipment on boats, this is what you need when you're hundreds of miles at sea and something vital breaks down. Detailed instructions with lots of pictures and line drawings. Hardbound, 2nd edition, 1996. 592 pages. $49.95.

Chapman Piloting, Seamanship and Small Boat Handling
by Elbert S. Maloney

The most comprehensive boating book in print. Recommended by the U.S. Coast Guard Auxiliary and U.S. Power Squadron and used by yachtsmen worldwide for more than 75 years, it is the recognized authority on seamanship and the handling of boats. Hardbound, 63rd edition, 1999. 656 pages. $45.



Seaworthiness, The Forgotten Factor
by C.A. Marchaj

It may have a sailboat on the cover, but make no mistake: this is the technical bible on seaworthiness, safety and comfort in small offshore boats of all descriptions. What it says definitely applies to passagemaking powerboats, and that's one reason Nordhavn designer Jeff Leishman has a well-worn copy on his own bookshelf. Hardbound, 2nd edition, 1996. 372 pages. $39.95.

Voyaging Under Power
by Robert Beebe, revised by James F. Leishman

If you want to really appreciate what goes into conceiving, designing and building a good offshore passagemaking powerboat, this is the book to read. Pacific Asian Enterprises partner Jim Leishman has taken Robert Beebe's original 1975 book, and updated and revised it with all the underpinnings for today's power-driven passagemakers. The definitive practical and philosophical guide to offshore cruising under power. Hardbound, 2nd edition, 1994. 272 pages. $29.95.

Ocean Passages for the World
by British Admiralty

For planning ocean-crossing passages under power, this is the book of choice for some of the world's most experienced passagemakers. Recommended routes across all oceans, seasonal weather considerations, currents, and more. A terrific addition to any serious offshore passagemaker's library. Hardbound, 4th edition, 1987. 314 pages. $110.

Prices shown are list price in U.S. dollars.

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Decisions, decisions

There are six different Nordhavns to chose from, in addition to the three new models previewed on Pages 6 to 26. By Jennifer McCauley Stern

NORDHAVN 62

The Nordhavn 62 looks, feels and performs like a serious ship. Her seaworthiness and luxurious accommodations are ideal for anyone looking to cross oceans in comfort and style. Over 7,000 lb of ballast contribute to her stability, allowing her owners to enjoy a pleasant ride in even the roughest conditions.

Billed as the ultimate passagemaker, the 62 is capable of cruising non-stop in excess of 3,000 nm at 9 knots. Her bulbous bow reduces resistance and pitch motion, allowing much comfort, speed and range.

Meanwhile, the 62's interior is unparalleled. A standard four-stateroom, four-head layout can be semi-customed to the owner's individual specifications, perhaps providing for crew quarters. However, since the 62 is inherently a self-sufficient yacht designed for short-handed voyaging, many owners run their own ship, leaving more room for family and guests.

LOA	62 ft 6 in
LWL	61
ft Beam	19 ft 4 in
Draft	6 ft
Displacement	135,000 lb
D/L	265
Cp	0.6
A/B ratio	2.2:1
Engine	Lugger L-6125A
Horsepower	325 hp
Fuel	2,450 gal
Cruising speed (S/L 1.2)	9.4 knots
Range at cruising speed	2,800 nm est
Year introduced	1992
Number launched	24

NORDHAVN 57

The sleek 57 has become Nordhavn's answer to those looking for a "fast" trawler. The waterline length—elongated by a parabolic shaped bulbous bow—gives the 57 its top speed of 11.5 knots. But unlike its semi-displacement counterparts which compromise efficiency for speed, the Nordhavn 57 can offer a reasonable pace without the associated costs. Its refined hull form is most comfortable cruising at 9 to 10 knots with a range of up to 3,000 nautical miles.

PAE has raised the bar of luxury with the 57's interior. Its contemporary look provides spacious, luxurious accommodations in a number of different layouts. The design of the 57 makes it a semi-custom boat that appeals to each owner's distinct tastes and needs. The 57's visibility and maneuverability are such that a couple can comfortably handle her by themselves, yet she is so roomy a captain can be easily accommodated if desired.

As with the rest of the Nordhavn line, the heavy-duty 57 is a stable and seaworthy yacht.

LOA	57 ft 6 in
LWL	52 ft 8 in
Beam	16 ft
Draft	5 ft 9 in
Displacement	95,000 lb
D/L	320
Cp	0.65
A/B ratio	2.1:1
Engine	Lugger L-6125A
Horsepower	325 hp
Fuel	2,000 gal
Cruising speed (S/L 1.2)	9 knots
Range at cruising speed	3,000 nm est
Year introduced	1996
Number launched	29

NORDHAVN 50

The Nordhavn 50 fuses a unique blend of seakeeping ability, performance and modern styling. A departure from the saltier look of traditional trawlers, the 50 is the ultimate cruiser for those looking for classic lines and Nordhavn dependability.

The 50-footer comes in a variety of layouts, making it ideal for a couple who want to handle the boat without a captain but who may have frequent overnight guests or a family on board with them. The two- or three-stateroom configuration is available in both a standard and wide-body layout,

the latter offering more interior room in the saloon.

At a cruising speed of 8 knots, the 50 can go nearly 3,000 nm. And when topping out at 10 knots, she can still travel over 1,000 nm.

Her fit and finish are second to none and help make the Nordhavn 50 one of the easiest sells on the resale market.

LOA	50 ft 6 in
LWL	44 ft 2 in
Beam	15 ft 5 in
Draft	16 ft
Displacement	75,000 lb
D/L	290
Cp	0.63
A/B ratio	2.1:1
Engine	Lugger L-108A
Horsepower	300 hp
Fuel	1,320 gal
Cruising speed (S/L 1.2)	8 knots
Range at cruising speed	2,800 nm est
Year introduced	1996
Number launched	23

NORDHAVN 46

The boat that began the ocean-crossing powerboat boom 14 years ago, the Nordhavn 46 is still going strong with over 80 hulls sold. And her record speaks for itself: no other production boat has experienced as many successful circumnavigations or ocean crossings as the Nordhavn 46.

Her blueprint has launched countless other ships, including the rest of the successful Nordhavn line of long-rangers. And while her specifications have been refined to reflect current research and technology upgrades, the theory behind her—that a soft-chined and ballasted full-displacement hull provides a stable and efficient boat capable of running in very rough seas in any direction—remains true.

Designed to be easily handled by a couple, with enough space to comfortably suit two guests, the 46 was drawn with two interior configurations. The two-stateroom layout includes a master berth with en suite head situated either amidships for the most comfortable ride, or forward for maximum ventilation.

The capable 46 is roomy and luxurious enough to provide a family with all the comforts of home on long voyages.

LOA	45 ft 9 in
LWL	38 ft 4 in
Beam	15 ft 5 in
Draft	5 ft
Displacement	60,000 lb
D/L	383
Cp	0.63
A/B ratio	2.3:1
Engine	Lugger L-688D
Horsepower	140 hp
Fuel	1,000 gal
Cruising speed (S/L 1.2)	7.4 knots
Range at cruising speed	2,800 nm est
Year introduced	1989
Number launched	78

NORDHAVN 40

The smallest of Nordhavn's blue water fleet, the Nordhavn 40 proved to be a capable ocean-crosser in her own right with the completion of the impressive Around-The-World voyage. The no-nonsense production vessel powered her way across 24,000 miles in just eight months without any major mechanical failures.

She is solid and seaworthy thanks to commercial-grade windows and doors, and machinery that is rated for continuous duty. At 7 knots, she's got a range of almost 2,500 nautical miles.

While it's obvious her seakeeping abilities can compete with bigger ships, so does her interior room rival that of a much larger yacht. A generous beam, relatively high profile and abundance of room below the waterline produce an interior volume similar to that of many boats in the 45- to 50-foot range.

Built at the Pacific Seacraft factory in Southern California, this boat offers luxury and offshore functionality at an easily managed 40 feet.

LOA	39 ft 9 in
LWL	35 ft 5 in
Beam	14 ft 6 in
Draft	4 ft 9 in
Displacement	50,000 lb
D/L	380
Cp	0.6
A/B ratio	2.3:1
Engine	Lugger L-688D
Horsepower	140 hp
Fuel	920 gal
Cruising speed (S/L 1.2)	7 knots
Range at cruising speed	2,400 nm est
Year introduced	1999
Number launched	43

NORDHAVN 35

Drawing from the ocean-crossing heritage of the long-range Nordhavns, the 35-foot Coastal Pilot is lighter and faster, intended for shorter excursions along demanding local cruising grounds. Developed in 2000 as an all-weather coastal cruiser, the 35 is ideally suited for an active couple seeking adventure.

She is handsomely equipped and thoughtfully laid out with little touches like Corian counter tops, a large queen-sized berth and dual-person helm bench that increase her comfort and desirability.

During testing by Power & Motoryacht, the magazine concluded: top speed of 15.6 knots with range of 430 nautical miles; at 8.9 knots, range is 1,693 nm; at 7.9 knots, 2,785 nm.

With an overall height from keel to cabin top of less than 13 feet 6 inches, she can be cost-effectively moved over land, so a summer's cruise to Glacier Bay, Alaska, can be followed by a winter spent exploring the Bahamas.

Her big boat features and capabilities make the Nordhavn 35 Coastal Pilot an ideal and economical alternative to the financial commitment of maintaining a larger vessel.

LOA	33 ft 4.75 in
LWL	33 ft 4 in
Beam	13 ft 2 in
Draft	3 ft 8 in
Displacement	24,000 lb
D/L	270
Cp	0.64
A/B ratio	2.3:1
Engine	Yanmar 6LYA STE
Horsepower	370 hp
Fuel	590 gal
Cruising speed as tested by PMY	9 knots
Range at cruising speed	1,600 nm
Year introduced	2000
Number launched	18

For additional information, visit www.nordhavn.com. Due to the semi-custom nature of its boats, Pacific Asian Enterprises prefers to discuss options, equipment selection and pricing on a one-to-one basis after reviewing with you the many choices available. PAE is headquartered in Dana Point, California, 949-496-4848, with sales offices in California, 949-496-4933, Rhode Island, 401-846-6490, and Florida, 772-223-6331.

Faces of Nordhavn

Here are the four dozen men and women of Pacific Asian Enterprises responsible for the success of Nordhavn. They are located at PAE headquarters in Dana Point, California, unless otherwise indicated

Dan Streech

Dan Streech
Owner/President

Ask Dan Streech about himself and the conversation invariably turns to his company, its history, its philosophy, its future. It quickly becomes clear the company is his life. A passion for the sea instilled at a young age led Streech to his dream of building world-class, ocean-going vessels.

As founder and president of Pacific Asian Enterprises, he turned that dream into the thriving business he oversees today, but the course to its success was anything but smooth sailing. Pitted against many a storm—spiraling interest rates, luxury tax, weak dollar—that threatened to drown the fledgling boat brokerage he started 29 years ago, Streech and his partners persevered through integrity, hard work and a never-say-die attitude. That ethic is evident today along the docks near the Dana Point, California-based PAE office and—more than any bottom line could—gives Streech the most pride, satisfaction and happiness.

During the first decade, he helped develop the 11 models and variants of PAE's now legendary Mason sailboat line, and then collaborated with Jim and Jeff Leishman on the design of the first Nordhavn 46. A 1970 graduate of California Polytechnic University, he possesses an engineering-minded penchant for systems such as fuel, water and hydraulic found on all the boats. Streech also focuses on ensuring a smooth production process. The one-time Nordhavn 62 project manager now supervises the entire project management department, which includes daily communication with the factories, compliance to American Boat and Yacht Council regulations, and overseeing warranty and commissioning matters. On the non-technical side, he shares business management duties with partner Joe Meglen, involving everything from accounting to human resources details.

"Being part of PAE has created a wonderful lifestyle which is full of satisfaction, fun and adventure," says Streech, 54.

Jim Leishman
Owner/Vice-President

He's been called the guru of cruising under power, but it's a title PAE vice-president Jim Leishman is reluctant to accept. He'd rather the spotlight stay focused on the product he and his company have been producing for the last decade-and-a-half. The concept for the first Nordhavn was inspired by the forward-thinking

Jim Leishman

Leishman, and it virtually brought about a revolution in the boating industry.

Leishman, along with his two partners and his naval architect brother, has developed a deep understanding of the long-range cruising market by constantly researching, experiencing, and trying to foresee the next big thing.

Joe Meglen

As Mason sailboat sales ebbed and flowed with the economy, Leishman searched for something that would spark the company's growth potential. Sensing a waning in the popularity of sailing, he concentrated his efforts on long-range cruising under power. He assisted his brother Jeff in drawing the lines for his naval architecture senior thesis, a 46-foot passagemaker, and the first Nordhavn was born.

Since then, Leishman, 47, has spent countless hours on board all six Nordhavns that PAE has produced, with many ocean crossings, countless trips up and down the West Coast of the United States, and a major portion of the around-the-world promotional voyage he conceived.

All this experience at sea, combined with the studies and the overall success of the Nordhavn line, have made Leishman a popular speaker on the seminar circuit. He also was asked to re-edit and update the classic cruising "bible" Voyaging Under Power, written by Capt. Robert Beebe.

Joe Meglen
Owner/Treasurer

As one of the three founding principals of PAE, Joe Meglen continues to operate under the job umbrella that he and his two partners took on when the company was established a quarter of a century ago. PAE has since grown tenfold, but Meglen remains busy in many different areas while concentrating on handling client payments and the importation of the boats into the United States. As well, he assists with management of the Nordhavn 57 project and oversees the sales staff.

An astute sailor, Meglen continues to be the company's go-to guy when questions on Mason sailboats arise. But now that Nordhavns have taken the company—and the boating world—by storm, he has little time for sailing.

A business degree in international finance and marketing from California State University, Fullerton, provided him with the background for his financial-officer status. But his schooling in boats and boatbuilding is the result of personal study and hundreds of hours at sea.

Meglen, 53, sees a bright future for PAE, thanks in part to a superior product and the superior team behind the product. "We have managed to surround ourselves with innovative, self-motivating people who share the same enthusiasm for building some of the world's greatest yachts," he says. "We have a collegial atmosphere at PAE which has proven to cultivate self-reliance, creativity, growth and confidence."

Jeff Leishman
Owner/Chief Designer

It began modestly enough 14 years ago as the final project for Jeff Leishman's senior naval architecture class. The lines he drew of a 46-foot ocean-going boat would become the Nordhavn 46 and eventually launch a marine industry phenomenon. That legendary drawing also earned Leishman a degree from the Yacht Design Institute (YDI) and helped him become one of the most respected yacht designers today, known for his work penning each of PAE's eight passagemakers and the Nordhavn 35 Coastal Pilot.

Leishman's roots in PAE began when he was just 15, commissioning boats. After high school, he received a degree in engineering and design at Saddleback College, and joined PAE to work on Mason sailboat designs.

Jeff Leishman

In recognition of his role in the growth of PAE, Leishman, 42, was made partner in 2000.

Pete Eunson
Project Manager N40 & N43

A grifted craftsman, Pete Eunson grew up with boats in Southern California and went to work at Ta Shing—the Taiwanese factory which builds the Nordhavn 35, 57 and 62—build-

Pete Eunson

ing Transpacs and Norsemens. He spent nearly 10 years at Ta Shing and there befriended the three owners of PAE, then dealers of Transpac yachts, returning stateside to join the company in 1982.

Dave Harlow

Dave Harlow
Project Manager N46, N47 & N50

A childhood friend of the Leishman brothers, Dave Harlow has an extensive sailing background and mechanical know-how. He was a delivery captain of offshore sailboats for the brokerage affiliate of PAE before shifting to sales. He was appointed project manager, first of the Mason 44, then of the Nordhavn 46 and 50. Last year, he added the new Nordhavn 47 to his to-do list.

Philippa Morrow
Project Manager N35

Philippa Morrow joined the PAE family in 1998 as manager of Nordhavn's affiliate sales office in Dana Point, and a year later became project manager assistant for the Nordhavn 35 and 40. She was named the 35 project manager in January 2003.

Philippa Morrow

Trever Smith
Project Manager N62 & N72

Trever Smith has been with PAE nearly six years. Like much of the staff, he started on the docks as a member of the commissioning crew, learning the inner workings of the complex vessels. His demonstrated knowledge of Nordhavns earned him the job of N62 project manager in 2001. A year later, he also took on the new N72.

Trever Smith

Justin Zumwalt

Justin Zumwalt
Project Manager N57

Seven years ago, this great-nephew of renowned U.S. Navy Admiral "Bud" Zumwalt started at PAE, doing odd jobs and washing new boats. He learned the complex systems of the Nordhavn and began traveling with new owners on maiden voyages to familiarize them with their new boats. In 2000 he became PAE's commissioning manager, and in 2001 he was made project manager of the Nordhavn 57.

Adam Cultraro
Sales Representative

After joining in 1998 as a computer specialist, Cultraro garnered a coveted spot on the team at Lemest Yacht Sales. His background in electronics engineering enables him to speak to his clients at a technical level that's not usually intimately understood by salesmen. He owns a 50-year-old classic sailboat that he's restoring himself.

Larry Gieselman
Sales Representative

The first official salesman, Larry Gieselman joined PAE nearly two decades ago, bringing an extensive background in sailing and marine hardware sales. Hired initially to manage the commissioning department and head up the marine equipment division of the purchasing department, he shifted to sales. Since then, he has sold more pre-owned Masons and Nordhavns than anyone in the world.

Jeff Merrill
Sales Representative

Jeff Merrill was recruited by PAE in 1999 to head the Nordhavn 35 Coastal Pilot project. Three years later, he moved to sales of the entire Nordhavn product line. A former vice-president of sales and marketing for Pacific Seacraft, builders of the Nordhavn 40, Merrill has an extensive sailing background that translates well to Nordhavn's large ex-sailor market.

Steve Miller
Sales Representative

A retired community college administrator, Steve Miller became a yacht broker, joining the staff of Lemest Yacht Sales four years ago. An avid sailor and owner of a 33-foot

Jeff Merrill, Adam Cultraro, Brian Saunders, Steve Miller and Larry Gieselman, left to right.

Endeavor sloop, Miller's trips of late have been on his customers' Nordhavns as he helps familiarize them with their new boats.

Brian Saunders
Sales Representative

Brian Saunders came to PAE in 1999 with an extensive background in the yachting industry. After graduating from university, Saunders—already a seasoned mariner—bought his own boat business where he sold Frers and Sparkman & Stephens-designed powerboats and sailboats. After 10 years, he sold the business and cruised the world.

Brad Smith
Sales Representative

A key member of PAE's commissioning team for three years, Brad Smith's knowledge of Nordhavns recently landed him a spot on the sales force. An ABYC certified electrician, Smith has flown all over the country to service Nordhavns. Smith lives on a 38-ft sailboat, and was a professional captain on both coasts.

Jennifer McCauley Stern
Marketing Manager
Northeast Sales Manager
Newport, Rhode Island

Jennifer McCauley Stern came to PAE six years ago to handle marketing duties. With PAE's growth, public relations functions were turned over to a marine-specialist ad agency, allowing her to focus on in-house publicity, feature-story writing and Web site duties. A Salve Regina University graduate, Stern returned to her East Coast roots in 2001 to head up the Northeast office. She's helping to organize the Nordhavn Atlantic Rally for 2004.

Gary Armellino
Sales Representative
Newport, Rhode Island

Gary Armellino helped launch PAE's Northeast office, allowing folks on the "right coast" to view Nordhavns closer to home. A Nordhavn enthusiast himself, Armellino has an extensive marine background including ownership of a boat-tow service, designer of boat parts, and delivery captain.

Dave Balfour
Sales Representative
Newport, Rhode Island

PAE's newest employee, Dave Balfour, joins the Northeast office with nearly 20 years' experience in the marine industry. Balfour worked 10 years at Freedom/Legacy Yachts, first as a customer service manager and then as a broker, and as a service technician and manufacturing engineer for Boston Whaler.

Ray Danét
Southeast Sales Manager
Stuart, Florida

Ray Danét owned his own brokerage firm for nine years before joining PAE's affiliate Lemest Yacht Sales in 2000. Before that he was a sales rep for Shock Boats and Forespar and also owned and/or operated three marine hardware stores. Danét has built a custom 34-foot sailboat and sailed it around the South Pacific. In 2003, Danét set up PAE's southeast office in Stuart, Florida.

Ray Danét, Dennis Lawrence

Dennis Lawrence
Sales Representative
Stuart, Florida

Signing on with PAE in 1988, Dennis Lawrence was the second salesman to join Lemest Yacht Sales and was aboard from the inception of the Nordhavn project. With his marine

Jennifer McCauley Stern

Gary Armellino

Dave Balfour

Kirk White and the commissioning team

technology expertise and thousands of miles aboard Nordhavns, he has contributed to design modifications resulting in improvements to PAE yachts.

Kirk White
Commissioning Manager

Kirk White launched his career as a yacht technician specializing in diesel engine repair, but has extensive experience both as a captain and as a master of all mechanical and electrical inner workings of boats. In 2000, after 11 years of operating his own business, he became PAE's commissioning chief. He manages a crew of 16 who can service up to eight Nordhavns at the same time.

Commissioning Team

Russell Barber, Nick Beye, Sarah Copper, Mark Craven, Paul Groover, Doug Harris, Justin Jensen, Mike Jensen, Eric Leishman, Troy Posner, Andrew Ridderhoff, Mike Roberts, and Garrett Severen.

Head Office Staff

Cindy Barnes, Accounting Manager; Jean Badraun, Office Manager; Tim Cruz, AutoCad Specialist; Mike Gregovich, Technical Manual Writer; Mary Harrison, Weekend sales secretary; Michelle LeRoy, Project Manager Assistant; Leah McGettigan, Sales Office Manager; Dorothy Mobley, Accounting Assistant; Sherman Salonen, Shipping and Receiving Assistant; Sky Scott, Purchasing/Materials Handling Manager; Patty White, Commissioning Administrator; Amy Zahra, Marketing Assistant.

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Staff at the head office in Dana Point

Built on a firm foundation

An enduring association with PAE's Taiwanese boat makers underpins two new plants building Nordhavns

By Garrett Lambert

Two new factories in Taiwan and China — and three new models in the Nordhavn line — will make it possible for PAE to double its annual sales volume.

The popularity of offshore trawler yachts has fueled construction of two new factories to build more Nordhavns. At the foundation of the expansion is the rock-solid relationship of Pacific Asian Enterprises with two Taiwanese boat builders, Ta Shing Yacht Building Company in Tainan, and South Coast Marine in Tanshui.

PAE began working with Ta Shing in 1978 to build its now legendary Mason line of sailing yachts. When PAE decided to add power passagemakers to its line some years later, Ta Shing's managers stuck to their vision of the company as a singular builder of high-quality sailboats.

Subsequently, a trusted friend introduced PAE's principals to the owner of South Coast Marine, an association that led to the birth of the Nordhavn 46 in northern Taiwan.

As sales of the N46 burgeoned along with a general strengthening of demand for powerboats, Ta Shing's factory found itself in need of more work in a waning sailboat market. Coincidentally, PAE had decided to expand the Nordhavn line with a 62-footer, and South Coast's location wouldn't work for the 62. However, the boat would fit into Ta Shing's plant with exactly one-half inch of clearance under the highest crane. Tight but doable.

Growth of the Nordhavn line continued apace with the addition of the N57 and N50 models, both built by PAE's Taiwan partners. The N40 was then designed to be made-in-the-U.S.A. and is produced in Southern California. However, when the N35 was introduced, PAE went back to Taiwan where the cost-quality equation was more favorable.

As production orders increased and both builders pushed their facilities to capacity, PAE decided to introduce the N47 in 2002. As well, a much larger vessel would have to be built in the near future to serve the next segment of their growing market. Clearly, something dramatic had to be done.

After more than two decades of successful collaboration, it was no surprise to PAE that when South Coast and Ta Shing learned of plans for the new boats, both agreed to invest in new multi-million-dollar production facilities.

South Coast had long wanted to expand into mainland China, and so the decision was made to move production of the N47, starting with hull #6, to the company's new plant on the sea in Xiamen, just across the Taiwan Strait.

South Coast moved key managers and foremen to Xiamen to train and supervise local craftsmen in the techniques required to produce Nordhavn levels of fit and finish. Employees have the added incentive of owning shares in this new venture. PAE personnel are on site routinely to back them up. Given the Xiamen factory's efficiencies, and the fact strong orders enable the boat to be built on a production basis, the target time from start of an N47 to completion is four to five months, with two boats being launched each month.

Less than 50 miles away, but on the Taiwanese side of the Taiwan Strait, Ta Shing's technicians are equally hard at work in their new factory in Tainan. They recently completed the dozens of molds required to build the N72, and are now putting them to use building the new flagship of the Nordhavn fleet, a process that takes about 10 months.

With both new plants so big they resemble blimp hangers, height and space are unlikely to hinder construction of even more and bigger boats for many years. That's a good thing, because PAE's management has challenged itself to double its total annual sales volume.

Passion and pride

A passion for passagemaking and pride in product drive everyone and everything at PAE

Three decades ago, the faces look younger and the hair longer: Jim Leishman prepares to varnish a wheel for a customer (upper left), Joe Meglen inspects a boat with the builder in Taiwan, and Dan Streech, a few years before the three met, prepares to cruise to the Caribbean aboard the yawl *Malabar IV* with his parents and sisters.

The trademark may be Nordhavn but the hallmark at Pacific Asian Enterprises is passion, pure and simple. It's a never-ending enthusiasm for passagemaking that propels PAE in all its endeavors. The three founders of the company wouldn't have it any other way. Indeed, they do not know of any other way to run the company.

They each caught the boating bug at an early age in their native Southern California.

Joe Meglen, when he was 15, wanted to sail and he wanted his own boat. No problem. The teen built himself a Sabot-like pram in the garage and, literally, with a sailing manual in hand, taught himself to sail in Newport Harbor.

When Dan Streech was 10, his father, an inveterate tinkerer, built him a small outboard-powered boat. As a teen, he had powerboats of his own, but when he read Eric Hiscock's Voyaging Under Sail while in college, sailing took over his life. Dan convinced his parents to quit their jobs, sell their home and buy an old yawl which the parents, two sisters and he cruised from California to the Caribbean.

During his high school years, Jim Leishman would have spent far more time at the marina than in class were it not for parental control. He took any job he could find down on the docks in Dana Point, and jumped at every opportunity to go sailing. Before he graduated, Jim had already crewed to Hawaii in a TransPac race.

It was in 1973, while working after school at Kettenberg Marine in Dana Point, that Jim met Dan when the latter joined Kettenberg as a yacht broker. Dan had met Joe one year earlier when he sold a Newporter 40 ketch to Joe's parents. In 1974, Dan opened Dan Streech Yacht Sales and within months, Jim, and then, Joe, joined him as yacht brokers. The die was cast.

In 1975, Dan Streech Yacht Sales became the U.S. representative for yachts built by two Taiwan builders, and, over the next five years, the trio would import and deliver more than 50 cruising sailboats, mainly CTs and Transpac 49s. In 1977, Dan, Jim and Joe formed a partnership to design and build their own line of cruising sailboats, with the first model designed by legendary Al Mason. Pacific Asian Enterprises was incorporated a year later, followed by Lemest Yacht Sales, a brokerage, the following year. The name Lemest is derived from the first two letters of the surnames of the founding partners.

The first Mason 43 was launched in June, 1979. Six years later, *Chablis*, Hull #2 of the 53-foot model, became the first Mason to circumnavigate the world. More than 300 Masons were built by PAE, with many completing ambitious ocean voyages and circumnavigations.

During the growth and success of PAE during the Mason years, the three partners kept their focus on development and design of ocean-going yachts, leaving the company free to choose and supervise the best

builders for each of its new projects. PAE owns its designs and molds, effectively creating a partnership with the factories without having ownership in them. Thus, Dan, Joe and Jim have never been bogged down by the burdens and inertia of industrial management, and capital has been available for refining current models and developing future ones. As a result of this focus, PAE was the first to recognize the potential for a new breed of passagemaker, and the Nordhavn line was born.

Inspired by all-weather North-Sea fishing trawlers, Robert Beebe's timeless book, Voyaging Under Power, and the designs of Charles Neville, Stephen Seaton and others, PAE set out to create a modern passagemaker capable of going anywhere, yet easily managed by a shorthanded crew. It was designed by Jeff Leishman, younger brother of Jim and now also a partner in PAE. Nordhavn was created to fill the needs of people who wanted to live their dreams of making offshore passages without the discomfort and hardship usually associated with long-range cruising under sail.

The first Nordhavn 46 was launched in January 1989. Six years later, *Salvation II*, Hull #10, became the first Nordhavn and the first production powerboat to circumnavigate the world. A new era in boating had begun, with PAE at the forefront. Indeed, PAE had introduced a new concept to a segment of the boating market that didn't even exist in 1989, arguably one it made possible and created.

Most gratifying to Dan, Jim and Joe, is the fact that ocean passages now are being made by everyday people of average athletic ability and physical strength. These are people, many of them couples, who simply love cruising and who have discovered the comfortable and safe world of power passagemaking.

Whereas the Mason line, with elegantly built and outfitted boats, raised the bar in the sailboat industry, the Nordhavn line has established a gold standard for quality under power.

Nordhavn quality stems from a pride in product that has driven PAE's founders since the very beginning. It's a pride in product now shared by more than four dozen employees—and the 200-plus owners of Nordhavn yachts. PAE has experienced little turnover in personnel, and Nordhavn owners find themselves dealing with familiar faces during their relationship with the company.

A true offshore passagemaker can make coastal cruising more comfortable and enjoyable, but a boat designed only for coastal cruising is inadequate for long-distance voyaging. Thus, only the best methods, components and systems are used, and everything is built to go to sea. Nordhavn quality means never having to worry about the integrity of the vessel—or its resale value. But, yes, the boats are not inexpensive.

With the advent of the new millennium, PAE has truly blossomed. It has attained that sweet spot in a company's history when all improvement seems geometric, when everything is possible—including the doubling of sales to $50 million annually.

The past and future success of PAE goes back to the love for boats and the devotion to long-range cruising that are shared by Dan, Jim and Joe. Nothing demonstrates their passion more than the decision to send a Nordhavn 40 around the world—and then to captain it themselves for half of the circumnavigation!

For the founders of PAE, looking after business takes place as much on the oceans of the world as in the office in Dana Point. It's one more characteristic setting the company that builds Nordhavn apart and, arguably, ahead of the rest.

How the name came to be

Advertising man Ron Geisman was asked to develop the introductory advertising for PAE's power passagemaker. He drew up a long list of Scottish and Scandinavian names, some real, others fictitious.

Nordhavn, one of the made-up names, was selected because it was unique, rang of refuge and safety, and reflected the North Sea heritage and styling of the 46.

Geisman's first ad featured the vessel's principal dimensions and a short narrative of the capabilities of the unique yacht, with the headline reading, "This lady is oceans apart." The headline captured the essence of PAE's concept and the position of the Nordhavn 46 in the cruising marketplace. Moreover, it distanced Nordhavn from all other powerboats and immediately led to the company slogan: Power that is oceans apart.

Fiberglass RULES

Steel is considered the stronger material for boat construction; however, fiberglass has proven more than tough enough and even superior in many applications

By Jim Kirby

You can't get much more hard aground than *Joint Decision*, a 57-foot Nordhavn that was left high and dry on hard rock in British Columbia waters. Damage to her fiberglass keel and hull was limited to a few gouges.

The tide has turned decisively in favor of using fiberglass instead of steel to construct power voyagers, but that hasn't stopped the debate. While fiberglass has strength, resilience, design versatility, low maintenance, durability and high standard of finish, the argument always comes down to one word: safety.

It is the principal reason for choosing a steel boat. Steel trawler builders contend their boats offer the safety advantages of superior strength, fire resistance and imperviousness to water absorption. However, a properly designed and constructed fiberglass vessel can have these same advantages. Take strength, for example.

As structural materials go, steel and fiberglass have three characteristics that naval architects find important in vessels: strength—meaning tensile strength, or the ability to resist shearing; stiffness—the material's resistance to bending; and hardness. In terms of tensile strength, individual e-glass fibers (the kind used in fiberglass roving and mat) have an ultimate tensile strength of around 300,000 to 400,000 pounds per square inch—equal to that of high-tensile steel wire of the same diameter (0.00020/0.00100 inches). However, when you compare steel and built-up fiberglass laminate on a strength-to-weight basis, fiberglass is around 800 percent stiffer than the mild steel used in boat hulls and decks.

"If the layups are of equal weight, pound-for-pound fiberglass is about 1,000 times stronger than steel," says Stuart Archer, naval architect for Northern Marine, builder of *Spirit of Zopilote* and other large trawler yachts. "But that would give you a fairly thick laminate. When you compare three-eighths inch steel, which is typically the plating thickness of vessels such as ferries—similar in size to trawler yachts—a fiberglass hull of equal strength would be around one and a half inches thick." Hull thickness in steel trawler yachts under about 50 feet typically averages around one quarter inch. That thickness of steel is comparable in strength to the one-inch layup in fiberglass-trawler hulls, so in real-world applications, strength is comparable for the two materials.

The cored fiberglass deck (left) is as stiff as a steel deck, yet its lower mass helps reduce topside weight, thereby lowering the vessel's center of gravity and improving stability when in light ballast. At more than 1 3/4-inches thick, the single-series fiberglass laminate (right) from a Nordhavn 57 has more strength than the 3/8-inch mild-steel plating used on commercial vessels in the 100- to 200-foot range.

What about impact survivability? For example, in a collision with a submerged shipping container, a log, or even in a grounding. In these situations, steel boat builders point with pride to that material's inherent toughness and resilience. However, here again, fiberglass construction has proven it is more than up to the task. In addition to its great tensile strength, fiberglass is also highly resilient—able to elastically bounce back into shape after being deformed by an impact. This helps it absorb impact energy by spreading it through the structure rather than localizing it, as is the case with steel.

Steel is indeed harder than fiberglass and more resistant to abrasion, yet fiberglass vessels show remarkably little abrasive damage in impacts and groundings. Take the case of *Joint Decision*, a 57-foot Nordhavn trawler. While cruising at an estimated 8 knots, she ran aground on hard rock in British Columbia coastal waters, and was left high and dry by an outgoing tide. When she eventually floated free, there was no evidence of any operational damage to the hull. Closer inspection revealed only superficial gouging on the bottom of the keel and a crack on the port side stabilizer fin's winglet. When she was finally hauled, repairs were minor. The five-inch-thick single-series laminates along the 57's keel and her one-inch-plus hull thickness proved more than adequate.

Statistics show that impacts and collisions are the least likely causes of hull losses. The true culprits are poor design and engineering. "If you look at what causes major problems for people on boats, it's not hitting containers, or hitting rocks, or breaching the hull; it's failure of systems—wiring problems and things breaking, such as rudders and steering gear," says Jim Leishman of Pacific Asian Enterprises, builders of the Nordhavn line of trawlers yachts. "The most important attribute of any long-range cruising boat really has to do with the construction and engineering of the boat rather than the actual material from which it's made."

This attitude has been adopted by much of the marine industry, where confidence in fiberglass construction has led to the design and construction of increasingly larger vessels. Vessels that in the past, would have been constructed of steel, such as a 200-foot high-speed ferry in Alaska and the U.S. Navy's 188-foot Osprey class mine hunters, are now made of fiberglass. In the Osprey's case, its three-inch-thick, single-skin laminate hull and eight-inch-thick keel must withstand the forces of an ocean-going warship and also survive severe underwater blasts from mines.

Steel's virtual incombustability is also seen as an advantage over fiberglass. Granted, fiberglass laminates will burn if a fire gets hot enough to ignite them; however, a fire of this magnitude and intensity will usually burn everything in and on a steel boat as well. In either case the result will be what insurers categorize as a dead loss.

"To minimize the fire risk on a steel boat, and suggest that the fiberglass boat is going to burn out from under you is completely absurd," says Leishman. "I think if you're going to have a fire on the boat, probably you have more time on the steel boat, but you're still going to end up probably having to abandon ship if you can't combat the fire. I'd rather be on a boat that's really well engineered and has good fire suppression systems. That's what is going to save your boat, not whether it's built out of steel or fiberglass."

Another attribute of steel is its impermeabity to water, while osmosis—the absorption of water into the laminate—has always been a problem for fiberglass boats made with polyester-resin. However, manufacturers of modern fiberglass yachts have eliminated this problem by using vinyl ester resins in their laminates. Vinyl ester is virtually impermeable to water

Corrosion resistance and low maintenance are also significant advantages of fiberglass. "Most of our boats are bought by owner operators—usually couples who run the boat themselves," says Bud LeMieux, vice-president of Northern Marine. "A fiberglass boat is essentially a wash-and-wear product, requiring less

maintenance and normally lower costs when it's time for a haul-out."

Steel boats on the other hand, have higher maintenance requirements, with significant annual expense to maintain a yacht finish free of spot corrosion and rust. Each third or fourth year, a steel yacht will likely need to be hauled, sandblasted and repainted. In his book, Elements of Boat Strength, Dave Gerr, who has designed and built boats in fiberglass, aluminum, wood and steel says this about steel boats and corrosion, "…rust is the cause of more maintenance throughout the life of the vessel than any other consideration in steel hulls." He goes on to state that a general rule-of-thumb is that a steel boat will lose about (0.004 inches per year), which means that in 25 years, 3/16 or 0.1875-inch hull plating will be reduced to 0.09 inches. Maintenance can help prolong the life of a steel boat, but there still are areas, such as bilges, around tanks and at the base of bulkheads where condensation collects, that will always remain inaccessible. It has often been stated that, " A steel boat rusts from the inside out." To compensate for this "wastage", designers specify larger dimension, or scantlings, for steel boats than those required for purely structural reasons. For example, for vessels under 100 feet, that should only require 1/4-inch steel plating, 3/16-inch plating is used. And where 3/16-inch plating is required they specify 5/16-inch steel. As a result of wastage, a vessel's value depreciates rapidly over the course of its life.

Jim Leishman concurs. "When people make a decision to buy steel over fiberglass, if they look actuarially at these things, they're going to find that the steel boat offers them no significant advantage in terms of safety or proven strength. At the same time, they have to look at the proven disadvantages of steel, such as increased maintenance costs—escalating as the boat ages—and historically poor resale value, when compared to a production fiberglass boat.

A huge advantage of fiberglass over all other materials is its tremendous design flexibility. The ability to easily form complex shapes with fiberglass makes it the ideal material for modern, high-efficiency hull designs and complex superstructure shapes.

An additional disadvantage of the steel boat's heavier construction is excessive weight, requiring more fuel and power to operate. Although this may not necessarily be as much of an issue in a full-displacement power cruiser, it still can adversely affect the vessel's center of gravity and stability, especially when in light ballast.

In addition to its high strength and ease of maintenance, one of fiberglass construction's biggest advantages over all other materials is its tremendous design flexibility. The ability to easily form complex shapes with fiberglass makes it the ideal material for modern, high-efficiency hull designs and complex superstructure shapes. "Fiberglass construction allows us to take yacht building to the next level of design," says Le Mieux. "Hull forms with compound curves offer more stability than the traditional hard-chine designs of metal boats. And these are only realistically possible with fiberglass."

Compared to their steel cousins, fiberglass yachts, produced from polished female molds, also tend to be more esthetically pleasing in line and shape, and also exhibit a higher overall finish quality. Achieving the same level of finish in a steel boat is usually prohibitively expensive. This is another reason why fiberglass boats traditionally retain a higher long-term value.

Fiberglass boats have two other advantages over steel boats that make them attractive to own and live on—lower thermal conductivity and less noise. Thermal conductivity can easily become an issue in hot and cold climates. Steel is a terrific conductor of heat—the minute the sun hits the deck of a steel boat it's going to transfer that heat to the interior. Cold water also draws heat out of steel. To counter this, steel boats require extensive insulation. On the other hand the resin laminates, and cored decks and hulls of fiberglass boats, work like an ice chest, providing an excellent thermal barrier between the interior and the outside environment.

Steel is also naturally resonant, making it an excellent transmitter of noise and vibration, while fiberglass acts as natural attenuator of sound and vibration. The result is a quieter, more comfortable boat—something to take into consideration when living on a vessel day in and day out.

So, should you choose steel or fiberglass when buying a long-range power voyager? While the debate is unlikely to disappear any time soon, the fact each material has been shown to be strong enough for the job means one less key criterion to consider. That leaves you to concentrate on other variables that are every bit as significant: the builder's reputation, the boat's design and construction, its range, displacement-to-length ratio, accommodations, features, appearance and overall quality. ©

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Naval architect Jeff Leishman, the staff of P.A.E., and Nordhavn owners throughout the world have collectively drawn on their experience to create the ultimate oceangoing yacht. The experience of building more than 500 vessels from 35 to 67 feet and personally voyaging hundreds of thousands of miles on them has been invaluable in developing this incredibly capable, luxurious vessel.

Ruggedly built entirely of fiberglass in highly polished molds, every square inch of the hull and superstructure is finished in gleaming gelcoat for a lifetime free of corrosion. As with other Nordhavn designs, the Nordhavn 72 has been thoroughly tank tested to eliminate any disappointing surprises.

Designed for open ocean passage making, she is also striking in her elegance and décor. Granite countertops, stone flooring, rich carpet, leather and the finest available equipment, appliances, fittings and fixtures are all standard on the luxurious Nordhavn 72.

Carrying 4,100 gallons of fuel, she has the range to cross any of the world's oceans with ease. Showcasing our latest work in fuel systems, hydraulics, electrical, air conditioning, anchor systems, dry exhaust, fire suppression and more, the Nordhavn 72 will be totally reliable and self-sufficient, providing owners with comfort and safety in the world's most remote locations.

Several accommodations plans are available. Call P.A.E. to speak directly with the people who have developed this remarkable yacht and who will be responsible for making its purchase and ownership one of the most enjoyable experiences of your lifetime.

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LWL	65'0"
Beam	21'0"
Draft	7'0"
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Trawler Travels

with Tom Hall and Liz McLoughlin and the Nordhavn 40 *Onward*

By Joe Hvilivitzky

Despite a love of the water that has spanned much of their lives, the live-aboard life of many cruisers is not for Tom Hall and Liz McLoughlin.

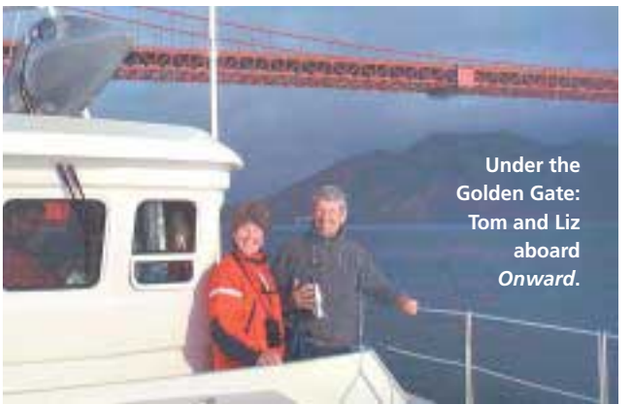
But it's not because either lacks a sense of adventure. After all, they set sail from Seattle for New Zealand in a 38-foot sailing cutter after knowing each other only a few months. "Half of my women friends thought, 'Why are you putting yourself in a position to die at sea?' and the other half thought 'Why are you doing that on a 38-foot platform with a man you hardly know?' " chuckles Liz.

They survived that four-month voyage in 1984 and many more since. Even over a telephone line, their affection for one another is evident as is the pleasure of each other's company. In 2001, they switched to power, purchasing a new Nordhavn 40. The shift away from sail came with the joys of exploring the Pacific Northwest.

"Right now we're both hale and hearty, but as we age we will be less able to handle the substantial demands a sailboat can sometimes put upon you," says Tom, 71. "Moreover, a rugged trawler such as *Onward* can make travel in the Inside Passage so much more comfortable and predictable when the weather turns nasty."

Cruising is an integral part of their lives, but not the defining one. Both Tom and Liz have busy, fulfilling lives ashore: Tom as a consulting health planner doing work around the world, and Liz, who works in violence prevention. Both are avid hikers and bikers. The couple cycled from Vancouver to San Francisco, where they live, and Liz, now 62, pedaled across the United States three years ago with her niece and nephew, both in their twenties.

Their thirst for adventure these days is slaked by taking *Onward* into inlets off well-travelled waterways, getting as close to shore as they can, then launching their kayaks from what Liz affectionately characterizes *Onward*, a KTV or kayak transportation vessel. (They have two kayaks, *Inward* and *Outward*.)



Under the Golden Gate: Tom and Liz aboard *Onward*.

Photo: Alan Hugenot

"Having the kayaks aboard gives one the freedom to turn the engine off, get into the kayak, and then explore," says Liz, recalling a particularly memorable jaunt at the end of a long entrance into what is informally called, Bombproof Anchorage, in the McNaughton group of islands southeast of Bella Bella, British Columbia. "At low tides, we could float over the most amazing bed of sea creatures you could imagine. You could never get that close to the shore (in *Onward*)."

Their cruising these days is about evenly divided between time alone and with friends. "One part that appeals is having guests aboard and the wonderful conversations," says Tom. "When we're alone we often read to each other."

Tom and Liz happily share their trips and adventures with their Nordhavn, and othwerwise, through their Web site: www.bikenfly.org.

Plans call for taking *Onward*, now on the hard in Anacortes, Washington, north to Alaska this summer, then leaving her there for the winter to allow additional exploration in summer 2004.

To those wavering about taking that step into the cruising life, Tom and Liz invite them to look at the joy it has brought them. "I would like to inspire people. . . to take advantage of every opportunity to get out of the daily routine and go to places that you never had the time to visit. When you have them, take them, because they are so precious," says Liz.

Adds Tom: "This is the kind of message I hope others will get . . . Take some time out between jobs, whatever, to realize your fantasies." ©

Tom Hall and Liz McLoughlin
Onward
Nordhavn 40 #25

- Nautical miles cruised: 3,800 since July 2001.
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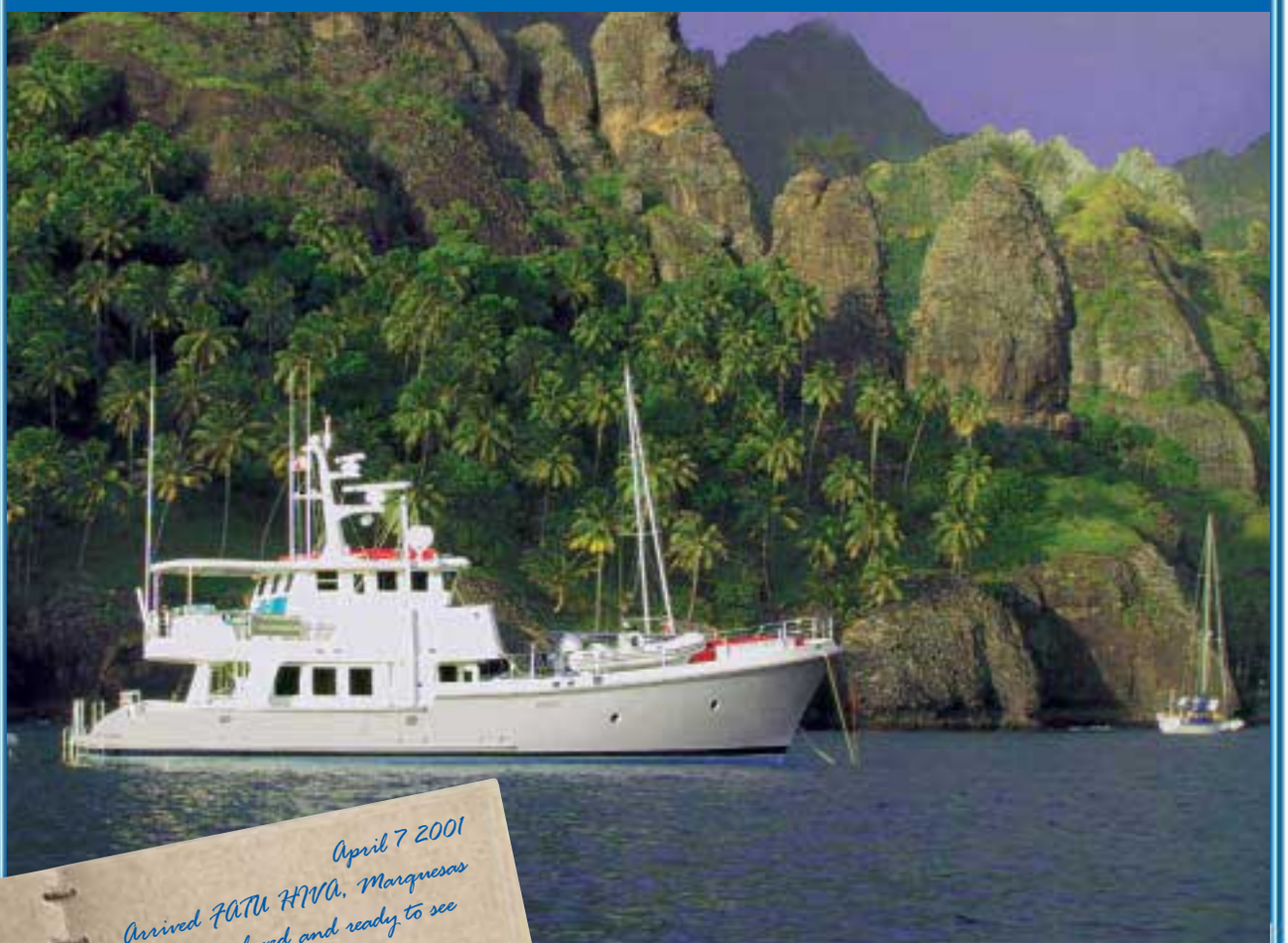

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