

By Wendy Mitman Clarke

Around the world solo in a sailboat: What does it take?

It takes stamina, humor, planning—not to mention hanging from a line 60 feet up, over waves the size of a house, in gale-force winds

Imagine being alone on the ocean for five or ten weeks. You're sailing in snow, ice and spray cruel as needles. The wind belts you like a prizefighter. Waves swell as tall as houses. The boat is your only haven, yet it throws you like a bronco. Amid all this, you must eat, sleep, navigate, find the quickest route, tiptoe the fine line of sailing fast but not boat-breakingly fast, handle every problem from sprained wrist to snapped mast, and carry on.

This is what Steve Pettengill contemplated during his four-week layover in Cape Town, South Africa, last November. Pettengill is one of 20 competitors from seven countries who entered the BOC Challenge, a single-handed, round-the-world race that happens every four years. They began in Charleston, South Carolina, and after stops in three ports along the 27,000-mile route—Cape Town, Sydney and Punta del Este, Uruguay—they will end up in Charleston late next month.

In Cape Town, the relative calm of the Atlantic Ocean was behind them. Preparing for the frigid fury of the southern latitudes, the racers stocked new food, fixed broken equipment, beefed up weak points in their boats and rigging, repaired old sails or got new ones for the windy leg ahead, and tried to find a quiet moment to gather their thoughts.

We caught up with 43-year-old Pettengill, of Middletown, Rhode Island, five days before he and the other racers left Cape Town, following his progress until he pulled into Sydney on Christmas morning. Here, then, is the account of what it takes to prepare for and then to sail one leg of a round-the-world race.



Off the coast of Rhode Island in late summer 1994, Steve Pettengill gave *Hunter's Child* a series of trial runs.

Tuesday, November 22, 10 A.M. Steve Pettengill is poring over the laptop computer at his navigation station, studying weather maps. Being inside the cabin of 60-foot-long *Hunter's Child* is a little like sitting in a teacup; at the teacup's center is the nav station. A bright-red fiberglass seat, straight out of a *Star Trek* set, sits on a swivel before a red table. The chair faces a phalanx of electronics, radar screens, computers, radios and instruments towering to the cabin's ceiling. At the top is a



In mid-September he and 19 other competitors sailed out of Charleston Harbor to start the BOC Challenge,

portable CD-and-cassette player strapped in with bungee cords. At the bottom is a row of small digital screens with labels: "windspeed true," "wind direction," "windspeed apparent" and, in bright-red letters, "fun factor" (that's boat speed). The chair and table are gimbaled, so as the boat leans to one side or the other, Pettengill can sit perfectly level to work.

Pettengill studies the weather maps every day, and this is about as still as he ever gets. A lean 6 feet 2 (he aver-

a 27,000-mile round-the-world solo race. He hopes to be the first to finish in Charleston, sometime in April.

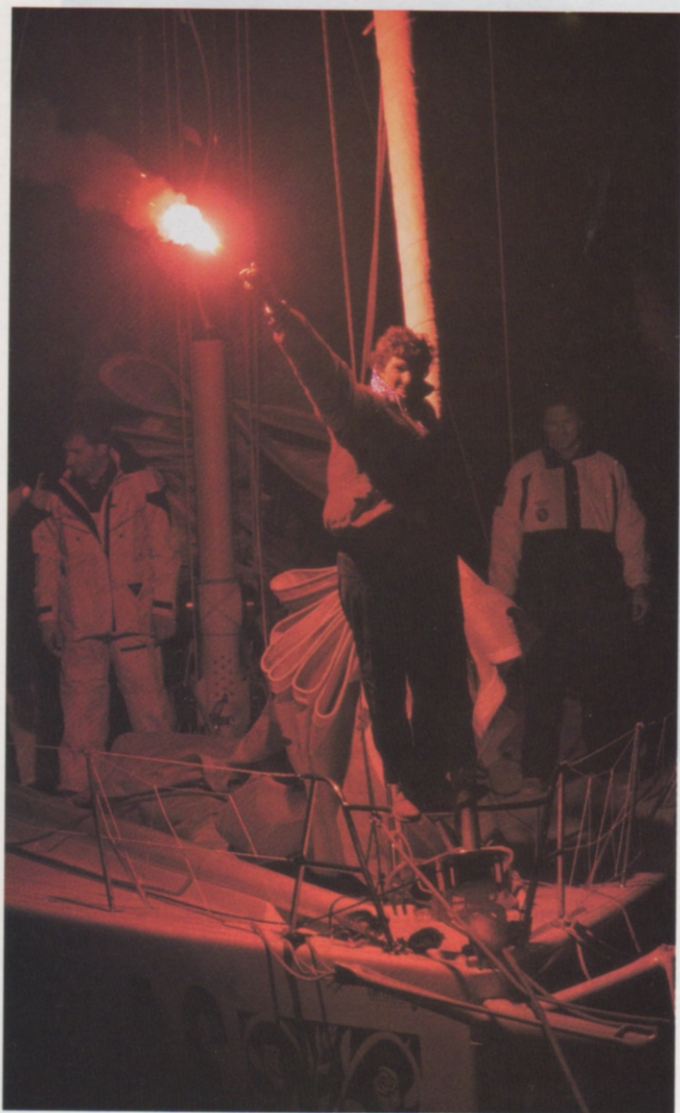
ages 175 pounds but burns them like a racehorse), he is a quietly bubbling geyser of energy and humor that every now and then erupts into a big round laugh. On a racing sailboat, where progress depends on reading and responding to wind and waves, his incessant activity—trimming sails, changing sails, tweaking this, modifying that—translates into speed.

"He was the best America could put on the starting line," says Warren Luhrs, chairman of Hunter Marine,

Photographs by Billy Black

the company that is sponsoring Pettengill. Steve's in-the-bones knowledge is born of years on the water. Growing up in the Midwest, he went on long cruises with his family and learned to sail and race on the Great Lakes. Later, in Newport, Rhode Island, he raced in several short, single-handed events, a sort of minor league training for the majors. He opened a business aimed specifically at modifying and preparing boats for racing. After years of working behind the scenes, helping other racers' projects succeed, he finally has his chance at the brass ring with this BOC.

Pettengill finished Leg 1 in just over 40 days, placing second and earning the best American finish ever among the 60-foot boats. A 38-year-old French engineer, Isabelle Autissier (below), the only woman racing, won



Arriving at 3 A.M., October 23 in Cape Town—with a five-day lead—Isabelle Autissier won the race's first leg.

the leg. Her finish some five days ahead amounted to a four-game sweep of the World Series. But though they win awards for each leg, the race's end result is cumulative. Autissier wants to be the first woman to win it; Pettengill wants to be the first American to do the same.

They know, as does every racer, anything can happen. Josh Hall, a veteran of the last BOC, never made it to Cape Town in his 60-footer this time around. Early one evening, 30 days into the leg, he steered off a wave and hit something so hard the impact smashed him into the wheel. In an instant, his boat was doomed.

"Seawater was simply gushing in through the compromised bulkhead and a crack in the bottom of the hull. I have never felt so scared in all my time at sea, and I desperately tried to organize my thoughts." He issued a Mayday, called race control and started pumping nearly 5,000 gallons an hour as darkness descended. Nine hours later, another competitor picked him up; they sailed off so as not to watch his boat go under.

Tuesday November 22, 2 P.M. *Hunter's Child* is blasting across Table Bay in about 20 knots of wind. Steve is letting the autopilot steer while he and his right-hand man, David Barnaby, wrestle what looks like an enormously long, fat snake on the boat's deck. It's really a sock enclosing a new sail. The one it's replacing resembled a grass skirt after an abrupt wind shift laid *Hunter's Child* on its side 48 hours from Cape Town, and the sail knotted itself in the rigging. "Took me two hours to get it down," Steve says, cringing as he describes slicing a whole corner of the sail to free it. That was a cool \$6,000.

The sock system makes it easier for one person to handle such a large sail without the wind's greedy fingers snatching it out of control. David and Steve raise one end of the enclosed sail to the top of the mast on a halyard. Then, using a system of lines and pulleys on the sock itself, they tug on a line, and the sock slowly slides to the top of the mast, exposing the sail to the wind so it billows open. Satisfied with it, they tug another line, and the sock comes down again, swallowing the sail.

An accomplished sailor himself, David is something like a Formula One pit crew, waiting in each port to attend to the sailboat and its skipper. Nearly every boat has such a crew, whether family, friends, local volunteers or hired help. They follow their racer's progress, order and ship replacement parts, pay the bills, answer the mail, triple-check every inch of the boat, help tie the countless loose ends that tangle every boat during a layover.

Wednesday morning, November 23. "I guess we don't need Guadeloupe and Haiti. St. Lucia, Martinique, no, I don't think we're going there." Steve is sorting charts, getting rid of those from Charleston. The racers must take charts for any ports they may need to visit in an emergency.

"Heard Island. OK, so this is that island we have to stay north of. OK, these two . . ." Steve's voice wanders off, mumbling latitudes. He throws the charts for Brazil, South



Spectators and press thronged the harbor in Cape Town to greet the BOC boats as they arrived. During

the layover there, skippers and shore crews prepared for the bone-rattling leg in the southern latitudes.

America and other places onto the floor, to be taken off the boat. Like other spare equipment, the charts will travel with *Hunter's Child's* shipping container. A stubby tractor-trailer, it meets the boat at each stopover and serves as traveling workshop, boatyard, chandlery and storage bin, full of tools, extra food, sails, rigging, lines, anything and everything the boat and its skipper might need.

After cleaning the heads on his cassette player with a Q-tip and stove alcohol, Steve pops in an Eric Clapton tape. Then he opens a Tupperware container and starts sorting spare parts, taking some out. This perpetual search for extra weight consumes any spare moment. Every fraction counts on a boat that is built to be light and fast. Pulling out his equipment manuals, he removes extra paper.

"Weight. Weight." He whistles. "Paper's heavy. Y'ever pick up a box of paper?"

Sunlight butters the cabin. From above filter sounds of David working on the mast. The peace, so close to the restart, is as luxurious as a long, hot bath. In Charleston, where the boats were moored in the heaviest tourist

Wendy Mitman Clarke is the Middle Atlantic bureau chief of Soundings and has been following the BOC Challenge ever since its start in Charleston.

district, the floating docks were a constant mob of reporters, photographers, tourists, friends and family. Shore crews struggled through the crowds, and often skippers just stayed in their boats, safely hidden from the insistent media. Hoses, vacuum cleaners, water jugs, crates of food, folded sails, piles of line, flats of cardboard shiny with resin and fiberglass remnants, drills, saws and tubes of marine sealant littered the docks as shore crews made last-minute changes up to the day of the start. Skippers, meanwhile, attended mandatory press conferences and sessions to learn how to use the computers and communications equipment they're required to carry. A day out of Charleston, the frenetic pace caught up with Steve, and he spent the first week of his epic voyage battling the flu.

Here in Cape Town, at the Royal Cape Yacht Club, the boats are more isolated, surrounded by a working waterfront of ships, tugs and fishing vessels. With one leg finished and the boats mostly intact, the frantic screwing and gluing of parts and equipment that marked much of the final week in Charleston is absent. Reporters pester, but not in swarms.

Steve has had time to go to the gym every morning to use the Nautilus and rowing machines. And each night he has set his alarm to go off every two hours. While sail-



Color-coded lines that allow Steve Pettengill to raise, lower or reef his sails lead back to the boat's cockpit.



Patty Pettengill, Steve's wife, stuffs food into boat's "cupboards"—bags that hang from the hull like bats.

ing, he sleeps a total of about 5 hours in 24, in naps snatched here and there. Waking up every two hours during the layover, even just long enough to turn off the clock, helps his body get ready.

Wednesday, November 23, 2 P.M. "I got too much cereal here . . . you got Cheerios, you got Grape-Nuts, cornflakes, and you've got this granola." Patty Pettengill, Steve's wife, is loading food onto *Hunter's Child*. Food—and nearly everything else—is stored in a series of mesh, zippered bags that hang on the boat's walls like fat gray bats. Rather than heavy drawers that fly open in rough weather, the bags are light—saving weight—and they stay closed. They also make it easy to grab something on the run. Similar bags beneath and above the two narrow berths on either side of the boat's oval doorway, where Steve sleeps, store his clothes. "I even got you the small-sized mashed potatoes," Patty says.

"Boy, we're talkin' treats out there!" Steve is going through a box of heated pads he can stuff into boots to keep his feet warm. "A little red wine, mashed potatoes—hoo! I won't want to come back."



Customized for solo racing, the navigation station in 60-foot *Hunter's Child* looks like a set for *Star Trek*.

Like many racers, Steve's main meals are freeze-dried or irradiated. The meals, sealed in foil, are light and easy to prepare on the gimbaled, single-burner stoves most racers carry: just boil in saltwater, cut open and serve. But Steve also likes plenty of other food. As Patty fills the bags, she labels them with masking tape and a black marker: apple juice, milk, candy, crackers, granola, yogurt, bread, fruit. A local company has given each skipper 12 loaves of long-life bread to try. Steve takes only 3. The rest are too heavy.

Wednesday, 4 P.M. A local television crew has arrived to include Steve and *Hunter's Child* in a feature they're filming about the boats' interiors for *Good Morning South Africa*. Irritated at having to accommodate a TV crew this late in the week, Steve nevertheless quickly warms to them, happily showing off his high-tech home, explaining the nav station, the storage bags, the electronics, the galley, the boat's layout. Why do you do it? the reporter asks. "I've had some good days and some bad days," Steve says. "But the truth is, there are more good days than bad out there."



Everything is here, from high-tech weather-tracking system to cassette player (Steve favors Eric Clapton).

It's the inevitable question. Some people think these sailors are hermits, ascetics, just plain crazy. But they're like anyone, except that the tidal tug of the moon and the slow breathing of the ocean pulls them more strongly. The ocean plays no favorites; it is here, rather than in corporate boardrooms or on Wall Street, that they choose to test themselves. Patty has a theory that we all evolved from water, and maybe some of us—her husband, for example—aren't ready to leave yet.

Wednesday, 9:45 P.M. A sickly yellow beam plays across the car. Next to the unlit guardhouse, and behind the 12-foot chain link fence, a dark silhouette holds a flashlight, studying the car but making no move to approach. This city is edgy, especially at night. Another man appears inside the fence and motions the car through. Then a quick walk, and Steve is inside the control tower at the Cape Town airport with chief meteorologist Keith Moir. They huddle before a computer screen swimming with lines swirling in strangely beautiful patterns over the tip of South Africa. Printers spurt sporadically; now and then a plane roars past a wall of pane glass. Otherwise,



Daily ritual: Pettengill and his shore crewman David Barnaby study a weather map in a Cape Town restaurant.



In the bow, sail bags and tools flank the generator; Steve thawed out here during the freezing second leg.

the place is silent but for the wind swatting the building.

Steve is here to get a lesson in reading satellite weather pictures. *Hunter's Child* carries a system that captures satellite photographs around the clock. Still fairly new to the program, Steve analyzes it religiously every day, and while at sea he studies it at least 6 hours out of 24. On Leg 1, that dedication helped him escape a weather system that wallowed like a monstrous jellyfish, entangling other racers in its windless tentacles. But on the coming legs in the southern latitudes, storms roll out of nowhere like bowling balls down an endless alley, birthing waves as big as buildings and mast-snapping winds. On Moir's weather charts, these low-pressure storms look like malignant growths, their looping ridges twisted and gnarled. "In the Southern Hemisphere you really have these small lows," Steve says. "A big low can pop off little puppies."

"Yes. You will find big lows in the 50 to 55 [degrees south] area. The mother system, and then the small ones," Moir says. "One low after another."

Thursday, November 24, 10 A.M. "I used to be a bit of a



In a harness atop *Hunter's Child's* 85-foot-high mast, David Barnaby checked rigging before Charleston start.

gearhead in high school. I had cut-down and modified dragsters. Used to go out to the racetrack on weekends. I think that's where some of my competitiveness comes from, those days." Steve is peering into the small cabinet housing *Hunter's Child's* generator. Someone has wired the regulator slightly wrong, and though the batteries are charging, the irregular wiring is bugging him.

Like most BOC boats, *Hunter's Child* is engineless. To charge the batteries that run the autopilot, computers, radar and other electronics, Steve uses a diesel generator and 500 watts' worth of solar panels on deck. Some racers also use wind-powered generators. Aside from being holed or dismasted, losing power is high on the nightmare list: it means losing communication, information and the crucial help of the autopilot, which frees the racers to cook, clean, repair, navigate, sleep and do the other jobs that fill their days and nights at sea.

"My main car was a '63 Corvette, a split-back-window Sting Ray," he says, fiddling with some wires. "I overhauled my first engine when I was about 13 on a Harley-Davidson I had." The generator sits in *Hunter's Child's*

forward compartment, and along both sides of the hull stretch long, taut nets filled with sails that can be hauled quickly through the hatch and on deck. A workshop area has tools, spare parts, extra fiberglass, resins and equipment stashed in Tupperware containers. Pushing a boat 24 hours a day is a recipe for equipment and system failure. A gearhead's paradise.

"Fixed!" He rubs his hands together, points to two wires, mimes how he plucked them out, reversed them. He whistles, and his woolly eyebrows shoot happily up his forehead.

Friday, November 25. The prerace pace is reaching the stretch run. Poster signing at 8:30 A.M., skippers' meeting at 9, weather briefing at 10. As Steve leaves the yacht club, a camera crew tries to pin him at the door. He fends them off for about ten feet, then succumbs to a few questions. The boat, too, is as busy as Penn Station, with computer gurus making last-minute checks, friends coming by to wish him luck, a photographer wanting Steve to come on deck. No dice.

At 2:10 P.M., Patty arrives with two gifts: an 8-by-10 white envelope that says "Open halfway" and a small package tied with red string that says "Open 2nd day." On the nav station, she places a postcard of a leopard cub perched on a log. It says, "Do you miss me yet?"

Saturday, November 26, 12:30 P.M. The floating docks are sinking with the weight of people who have gathered to see the racers leave for the starting line. As each boat is towed from its slip, cheers erupt like fireworks. At 3 P.M., the starting gun sounds, and they are off amid a swarm of boats filled with spectators.

Friday, December 2: 1,200 miles southeast of Cape Town. "Dismasted. No danger immediately." That stark message to race headquarters in Charleston, from race leader Isabelle Autissier, stuns the fleet: a broken metal fitting has shattered her hopes.

"Thirty knots of wind, sea dark, sky crying," she reports a little later. "I'm working to clear off the deck and see what I can do. There is almost nothing left on deck, nothing left of my dream. But I won't think about that now. I am safe." Not ready to give up, she decides to jury-rig a mast and go on to Kerguelen Island: her shore crew is organizing a mast to be shipped there for her.

Swinging in a stomach-churning arc

Saturday, December 3: about 1,400 miles out of Cape Town. Steve is halfway up *Hunter's Child's* mast making repairs. Lashed to the mast with a thick nylon strap, 40 feet off the deck, he swings through a stomach-churning arc, a tiny weight on an enormous, uncertain metronome wand. Beneath him the boat plods through angry gray mounds of water 15 or 20 feet high. Above, the sky spits bone-numbing rain and sleet. He's sitting in a webbed harness that wraps around his legs and crotch. Long stir-

rupts hang on either side, and by stepping in these he can inch his way up the mast. Between his legs dangles a canvas bucket full of tools.

This is his fifth time up the mast in a sleepless two days. Yesterday at about 9 P.M., as he was sitting at the nav station eating curried rice and chicken, the boat fell off a wave and he felt the sick jolt in his bones. "A flex in the whole boat. You knew something big was wrong," he says. "It's not a good sound." The mast, which should be a straight column, was bowing like a bone about to break; a metal fitting holding a critical supporting stay halfway up had snapped. Steve dropped all sails but a tiny handkerchief and steered the boat with the wind and waves to take the pressure off until daybreak. Then he spent the night deciding how to fix it. Forty-eight hours and several fax conferences to Warren Luhrs and David Barnaby later, he's working on what he hopes will be his final repair.

About 40 minutes in the freezing rain is all he can take at one time. He works on the bottom portion of the repair, then scootches himself up another dozen feet to work on the top. Then back down, then back up. His hands are like hamburger, raw, torn, bleeding, blistered and chafed in the saltwater and cold. Every now and then he stops to breathe life into his fingers. Finally, the repairs are done. He descends; his numb hand can barely work the clutch that prevents him from crashing to the deck. When he touches down, he rushes below and fires up the generator, warming himself by its noisy rumble.

Isabelle Autissier

Cold and discouraged, Isabelle Autissier talks by radio to helicopter that is on its way to rescue her. On New Year's Day, following a four-day wait, she was winched off the boat, which had been dismantled and partially flooded.

December 13, daybreak: about halfway between Cape Town and Sydney. Hunter's Child is two days into a storm that has slam-dunked the fleet, breaking equipment, ripping sails and sending boats careening down titanic 50-foot waves and cross seas. For now, it has changed the race's character; winning is less the goal than surviving. Steve has had no sleep for more than 48 hours. Though the autopilots can steer the boat, it's safer for him to hand-steer in the wild waves. When he's not steering, he is hard at work keeping his boat together. He's stuffed granola bars, candy bars, apples, cartons of juice and sacks of dried apricots, raisins and peanuts into small storage holes in the boat's doghouse, a cozy nook between the main cabin and cockpit. As he steers, he can reach in and grab something to munch until there's time to go below and cook a hot meal.

Down below, the cabin drips like a sewer. The temperature averages 35 to 40 degrees. Steve's wearing layers of clothing, and he changes his socks constantly because water pours into his boots when he's on deck. To dry them, he runs a string between the generator and a sail bag, where his socks dangle and swing like soggy Christmas ornaments. The bunks are wet, but it's no great loss; he grabs sleep like a snack, curled up in the doghouse, fully clothed. "I woke up one time standing with some tools in my hand," Steve says. "I woke up drooling on myself. I said, Jesus, I wonder how long I've been standing here? You'd go until you passed out and then wake yourself up. It was nonstop."



The grueling BOC race

This morning, as Steve is descending into the cabin, a huge wave smashes *Hunter's Child* and drives the mast into the water. The nav station's desk pops open and spills tools, plastic bags of parts, a computer printer and assorted junk all over the cabin. Equipment manuals take wing from the shelves, cassette tapes clatter to the floor, and dozens of batteries scatter and fly. "It got real dark inside and I could feel the boat get pushed down underwater," he says later. "You could feel the pressure on your ears. I'm standing on the side of the coach [cabin house roof] and stuff's flying all over, manuals, everything's dumped out. I just said to myself, I hope this son of a bitch holds together."

Suddenly, a window just forward of the nav station pops under the pressure, and water shoots in as if from a fire hose. The corners of the window frame start tearing as the ocean tries to rip a bigger hole in the boat. "I was thinking—before the window even came out—I was thinking, she's over farther than ever, I hope she makes it back up," he says. "I did flash on the fact that the life raft was right there."

The boat groans upright, and Steve is ankle-deep in water. It pours onto the nav station, flooding the computers and electronics. Sheets of computer paper and a few of the foot warmers he stuffs into his boots are stuck to the ceiling. He leaps for the emergency pump and starts bailing with a bucket as well. Loaded with water, the boat wallows unsteadily. "I'm thinking to myself, I hope I don't get hit by another one of these now because the boat's so unstable with all the water," he says. "That's when you think about going down."

After most of the water's gone, he cuts an aluminum tube and props it between a bulkhead and the window, jamming the popped window back in place. Then he caulks it inside and out with quick-drying sealant. The next morning, he strengthens the window's corners with carbon fiber and epoxy. Then he cuts up a sheet of plywood on which he repairs sails and places one piece

over the window on the outside and one inside, running bolts straight through the cabin roof into both planks. The window holds. The mast stays up. *Hunter's Child* sails on. A day later, the storm abates.

Sunday, 2:12 A.M., Christmas morning. *Hunter's Child* crosses the finish line under a race committee boat's floodlights, and race officials dressed in Santa Claus hats and suits jump onto the boat and start dropping sails. Patty, who's been in Sydney for two weeks, waits on the committee boat. Battered, bruised, exhausted, Steve has finished third, sailing the 6,700-mile second leg in 28 days 2 hours 12 minutes.

Wednesday evening, December 28, about 920 miles off Adelaide, Australia. Isabelle Autissier, who rigged a temporary mast at Kerguelen Island and was heading steadily for Sydney, has activated her emergency beacons. Toppled by an enormous wave, her boat rolled through 360 degrees, stripping the deck. The ocean punched a hole across the cabin top, destroyed the steering system and flooded the back end of the boat. Isabelle shuts the watertight door to corral the water in one compartment, then holes up in the front of the boat until a Royal Australian Air Force plane finds her. On New Year's Day, an Australian Navy ship arrives and dispatches a helicopter, which lifts her to safety. Isabelle's boat, like her dream, is left to drift in hopes of salvage.

January 3. *Hunter's Child* sits high and dry, undergoing a complete overhaul. The broken window will be permanently closed over with fiberglass. The mast is removed, and David will dismantle it and x-ray every piece of metal, looking for any signs of cracks or fatigue. Metal fittings like that which nearly toppled the mast will be replaced with the next larger size. At least two new sails will be built, and all others will be repaired. A heater will be installed; no more hugging the generator.

Steve remains in second place overall, a day and a half behind defending champion Christophe Auguin of France, who won Leg 2. But the race is only half over. Leg 3, back into the Southern Ocean and around Cape Horn to Punta del Este, Uruguay, begins January 29. Then on to the finish in Charleston, sometime in late April. Anything can happen.

And so Patty organizes the food, answers the mail. David quietly examines every inch of the boat and mast. He and Steve try the new sails. They replace the soaked computers. They study the weather. And Steve weeds out his charts, goes through the parts bins for any extras, sets his clock for every two hours and snaps his fingers to some new tapes, awaiting his chance in the ocean, again.

BOC racers looked sharp leaving Cape Town; the boats are now in Uruguay preparing for the final leg.



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