

Sophisticated global sailing yacht gets a world-class refit in Portland

Maine Yacht Center's renovation of the 60-foot Vendee Globe racer may be the most high-tech ever in Maine.

By **TOM BELL**
Staff Writer

A Portland boatyard is renovating a sailboat that will compete in the 2008 Vendee Globe, a dangerous, nonstop, around-the-world race. This job may well be the most technologically advanced renovation to ever occur in Maine.

The 60-foot boat, the Great American III, was built in France in 2000 and previously named Solidaire. It has a carbon fiber shell and foam core. To give owner Rich Wilson of Massachusetts a chance when competing against brand-new racing yachts, workers at the Maine Yacht Center are virtually gutting and rebuilding it.

Working under the guidance of General Manager Brian Harris, the yard has rebuilt the boat's bow, modified its canting keel, and has installed all new electronics, a new navigation

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system and a new engine.

Harris redesigned the deck layout and installed a pedestal winch so Wilson can operate the sails without leaving the safety of the cockpit. He replaced its stainless steel rigging with lightweight synthetic fiber.

Harris also replaced the original gooseneck fitting, a composite structure that connects

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The Great American III, in its earlier days when it was known as *Solidaire*, catches a breeze off the coast of Brazil. On board is its skipper, Thierry Dubois. Photo by Billy Black/courtesy of Brian Harris

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the boom with the deck at the bottom of the mast, with a newly designed one.

"We're trying to give it a little edge," Harris said.

Harris is relatively unknown among Maine boatbuilders. But he is an example of how just one man's expertise in a niche, high-end market can be a powerful economic resource.

Wilson, the owner of the Great American III, said Harris is the only boatbuilder in the United States qualified to work on Open 60s, a class of racing boats designed for single-handed or double-handed offshore racing.

Because sailboat racing is dominated by Europeans, Harris doesn't expect the yard will develop a regular business working on racing yachts. But he hopes the work on the Great American III will position the yard for work refitting sailing vessels for extended voyages on the open seas.

Harris' career has been a voyage of its own.

A graduate of the Landing School of Boat Building and Design in Kennebunk, Harris ran Rumery's Boat Yard in Biddeford from 1990 to 1998.

His last big project at the yard was renovating a racing yacht. He enjoyed the challenge of working on cutting-edge boats so much that he decided to pursue a career in the world of racing, moving to France, where sailboat racing is a popular professional sport.

Later that year, while sailing aboard an Open 60 near Cape Town, South Africa, he experienced for the first time the thrill of sailing a world-class racing boat in heavy winds.

"Once you experience sailing at 24 knots, it's hard to turn back," Harris said. "The first time you feel the speed and power, it's addicting."

He helped build and outfit six racing yachts. He was involved in three around-the-world races, six trans-Atlantic races and two trans-oceanic record-breaking voyages.

But his new career required a huge personal sacrifice.

His wife, Alison Hawkes, a Cape Elizabeth teacher, continued to live in Portland. Hawkes would spend her vacations with Harris in Europe, and he would fly back to Maine between projects.

Four years ago, when the couple adopted a newborn baby, Harris knew he would have to move back to Maine. But the hard part was finding a job that would allow him to stay involved with state-of-the-art sailboat design.

He never found that job. Instead, he created it.

In 2005, he started working at the Maine Yacht Center, a high-end marina in East Deering just east of Tukey's Bridge. The marina, which had opened in 2003, is owned by Delmar Systems, a



Doug Jones/Staff Photographer

Brian Harris is leading a project at Maine Yacht Center in Portland to refit the Great American III for the 2008 Vendée Globe.

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Today's story is the fifth in a 15-part series that will appear in the

Maine Sunday Telegram every Sunday throughout the summer. Shipbuilding is one of Maine's original and defining industries, deeply embedded in the state's history and still flourishing today.

Next Sunday: The art of boatbuilding is passed on to Maine children thanks to programs like the Compass Project in Portland and a boatbuilding class at South Bristol Elementary School.



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Louisiana corporation that provides services to the offshore oil and gas industry.

The marina was inactive when Harris started working there.

A devastating spring storm had wrecked its floating dock system and shut down the marina for the entire boating season. The company that summer had just finished building a 45,000-square-foot building for boat storage and repair.

"It was basically an empty canvas," Harris said. "It was up to me to mold and make the business work."

Harris now supervises 12 workers, eight of whom are involved in boat renovation work.

Because of Harris' skills, the yard is uniquely situated, said one of his competitors, Phineas Sprague, owner of Portland Yacht Services.

There are about 30 boatyards in Maine that

could prepare a boat for an around-the-world voyage, Sprague said, but only Harris has the know-how to fit-out a boat for the world's most extreme and demanding sailing race, the Vendee Globe.

"Brian is a gem," Sprague said. "He's an asset to this particular part of the sailing world."

These boats are built to be as light as possible but strong enough to withstand storms at sea. They have swinging keels that allow them to maximize sail area without tipping over when the wind comes up. Also, boats in the race have to prove their ability to right themselves if they capsize.

The Great American III can cruise at speeds greater than 20 knots while topping out at 30 knots or more.

To buy and refit the boat will cost about \$1 million, but it would cost three or four times that to have a new one built, Wilson said.

Wilson said he is literally trusting Harris with his life. "He's exceedingly knowledgeable," Wilson said. "He just gives you great confidence."

Wilson will represent the United States in the race, which will have a maximum of 27 boats.

This is the same race in which Maine-based sailor Bruce Schwab competed in 2005. Schwab is the only American to successfully finish the race, which takes place every four years.

The race begins and ends in France. The competitors must travel around both Cape Horn and Cape of Good Hope. The seas in the southern hemisphere are notoriously dangerous.

There have been three deaths associated with the race.

In 1992, American sailor Mike Plant was lost at sea when his boat capsized while he was sailing to France to get to the start of the race. Shortly after that race started, Briton Nigel Burgess was swept overboard in a storm. In the 1996-1997 race, Canadian sailor Gerry Roufs was lost at sea. His unoccupied boat was later found off the coast of Chile.

The Great American III still has to be certified by Vendee Globe organizers.

Within the next month, a Vendee Globe official will come to Portland and monitor a self-righting test required by the race rules. With the help of a crane, the hull will be turned 90 degrees so the mast is parallel to the water. From a dinky, the official will attach specialized equipment to the end of the mast and measure the righting force of the boat.

In August, Harris and Wilson will take the yacht on sea trials off the Maine coast.

They will be watching for low-pressure systems.

"Small craft advisories are good sailing conditions for an Open 60," Harris said. "We want some strong winds."



Courtesy of Vendee Globe

The Open 60 Pro-Form churns through a stormy day on the Pacific Ocean in the 2004/2005 race. Rough weather is often a test of both boat and skipper.

OPEN 60s BUILT FOR SPEED, ENDURANCE



The sails

Open 60 engineers and designers laminate their sails from substances like Kevlar, carbon and Mylar. The sails are built to retain their shapes in heavy wind and resist tearing at stress points.

The hull

Hulls, often made from laminates of carbon and fiberglass, allow designers to minimize weight and maximize strength and stiffness.

The keels

Long, heavy keels counteract the forces of wind and water, keeping the boat upright. The Great American III will have a 'canting' keel that can be swung laterally either way, allowing the skipper to maintain sail area when the wind picks up.

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Staff graphic by Jeff Woodbu