



David Marlow

A New Yacht, A New Challenge

MARLOW CHAIRMAN DEVISES 3,900-MILE TEST-DRIVE FOR VOYAGER 76 LR; INVITES OTHER BUILDERS ALONG.

avid Marlow had a plan. He wanted to build a long-range yacht that could cross any ocean without refueling, but it had to make the crossing at faster speeds than conventional long-range yachts, and it had to keep its occupants comfortable. The end result of years of shipbuilding and refinement is the Marlow Voyager 76 LR, which debuted at the Miami International Boat Show in February 2010.

Marlow, chairman of Marlow Yachts, is so confident in his latest vessel that he has concocted a contest, dubbed the Ocean Challenge. Marlow has asked his fellow builders to put their longest-range yachts in the water at West Palm Beach, Fla., this summer and race to Reykjavik, Iceland — a distance of roughly 3,900 miles — using only the fuel in the yachts' standard-size tanks.

He sees it as a harkening back to the days when yachtsmen engaged in such competitions on a regular basis. Plus, he really likes being on the water.

Sea: What inspired the Ocean Challenge?

David Marlow: The Ocean Challenge was inspired by the former days of yachting — when adventurous men showed pride and complete confidence in their products, testing them in the public arena against others to verify the printed advertising that extolled their capabilities. A voyage of this distance in the waters of the North Atlantic will separate the properly built and capable seagoing yachts from the dock queens that cannot undertake such a test of their design, construction and character.

> Why is that competitive spirit so important to you?

Competitive spirit is part and parcel of the human experience, without which we would never have left the safety of the caves for the larger, more exciting world. Without that spirit, nothing could advance, nothing could improve. Yesterday's newspaper would be good enough. It is now and has always been important to me in every endeavor.

> The new Marlow Voyager 76 LR is your yacht of choice for the challenge. Why?

It is similar to the mid-1980s when

large sailing yachts broke free of the old wives' tales regarding constraint of speed by waterline length, and they doubled and tripled their speed during passages with increased safety and comfort. Prior to that, the industry believed that a typical 50-foot sailing yacht was destined to a maximum speed under sail of about 6 knots. Forward-looking designers threw away the old rules that a sailing yacht had to be round, deep and slow, developing ocean greyhounds that waltz with the sea rather than engage in a slugfest. Today's offshore sailor is able to carry on with reduced sail in safety at far greater speeds and under complete control.

It is the same for offshore power voyagers. Round, deep and slow yachts are at the mercy of whatever comes their way since they cannot break free of their own bow wave. As modest speeds around one times the square root of the waterline length are exceeded, the hull resistance graph turns vertical and any semblance of fuel economy is lost. For the average 50-foot displacement power yacht, that means speeds must be kept around 5.5 or 6 knots or range is severely impacted. A yacht that might have a 1,500-mile range at 5.5 knots likely would find that range halved at 6.5 knots and might get well under 400 miles at 7.5 knots.

A semi-displacement yacht designed like the Voyager 76 has no such constraints and will provide equal or better fuel efficiency at the lowest speed ranges, 5-plus knots for example, and will continue with far greater fuel efficiency than the full-displacement cruiser well beyond speed-to-



The Marlow Voyager 76 LR is designed to be a state-of-the-art ocean-crossing yacht, with the latest in technology and comfort on board.

length ratios of one times the square root of the waterline length. As speeds increase to around 1.3 times the square root of the waterline length (around 7 knots for an average 50-foot yacht), the resistance of the displacement hull form skyrockets, while the semi-displacement design continues to gain speed at a modest fuel increase.

> How is the 76 LR different from its predecessors at Marlow?

The design focus was to sacrifice the ability to reach speeds near 30 knots in favor of extreme range at phenomenal speeds in long-distance mode. This was accomplished by a slightly narrower beam waterline, refaired buttock lines that allow wave-making resistance to decrease and a slightly deeper midsection. At



stainless steel “birds” that eliminate the cumbersome and dangerous flopper stoppers — yet are more powerful and launch-retrieve at the touch of a button — provide approximately the same additional righting moment as the automatic ballasting system. One, both or neither may be used by flipping a switch or pushing a button. If weather deteriorates to gale-force conditions and worse,

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the same time, the Voyager is of heavier displacement than the Explorer series of similar size, with additional laminates of Kevlar and carbon fiber for voyages in sea-ice conditions.

The Voyager features multiple levels of stabilization at sea or in rough anchorages. Some are passive, including ballast that may be filled or jettisoned at will to provide higher performance yet provides a righting-arm moment of nearly 17,000 foot-pounds when in use. Automatically deployed

sophisticated automatically adjusting hydraulic stabilizers may be deployed at a push of the button.

> What do you hope the boating public learns from the Challenge?

That design is not a dead-end street, as scholars and imaginative souls have shown us since time began. What seemed impossible yesterday can become commonplace today — with tomorrow holding the promise

of ever-greater performance and technology.

> What will Marlow and the other builders learn from this experience?

The limits of some equipment and the pathway to improve it. Just as today’s automobiles are equipped with superior tires, outstanding braking and performance, and excellent accident safety due to innovations at NASCAR and other competitive performance events, marine components will show their true colors under such endurance testing. I hope that leads manufacturers to improve upon the current state of the art.

> How long do you anticipate the trip will take?

We believe we can complete the voyage in approximately 18-19 days with reasonable conditions. We predict that other similar-sized yachts will require 30-35 days, assuming moderate sea conditions.

> How big of a crew will be along for the ride? Will you be among them?

I wouldn’t miss it for the world! I am both captain and chief navigator for the voyage, as well as the mechanic if need be. The crew will be five or six people to allow a fresh helmsman and watch on a reasonable schedule.

> What kind of technology will the crew have on board to guide them?

We will have the gamut of navigational gear, from radio direction finders to a sextant to sophisticated marine electronics, including electronic charting backed up by deduced reckoning on paper charts.

> The Challenge ends in Reykjavik, far from the tropical climate of West Palm Beach. Based on that, I think everyone wants to know: Why is Iceland green and Greenland ice?

Maybe the Vikings who discovered Greenland-Iceland got mixed up in their ship’s log. Perhaps a tot too much sundown grög. 🍷