



And the winners are . . .

The 2004 *Blue Water Sailing Design Competition* asked for a couple's passagemaker that was capable of carrying a Walker Bay dinghy on deck—and the prize is, you guessed it, a nine-foot Walker Bay RID dinghy

by George Day

When *BWS's* editors laid out the guidelines for the 2004 design competition, we anticipated that the entrants would come from the ranks of able amateurs and recently graduated students from Westlawn, the Landing School, the University of Michigan and other institutions that offer yacht design programs since we had promoted the contest through these institutions. A design competition such as ours is a fine way to get noticed.

Yet we also received designs from a few well-established professionals, who set out to meet our requirements and to make their own statements, based on years of experience and many boats launched, on what a blue-water boat is all about.

In an attempt to maintain a level playing field, the editors and our judges, Bill Langan and Rodger Martin, judged the designs on how well they met the letter of the contest rules, given each entrant's experi-

ence; in a sense it was like giving each entrant a PHRF rating, with the established pros having lower (faster) ratings than the amateurs.

The results that follow show how imaginative, innovative and thoughtful new and established designers can be in the cause of drawing a great cruising boat that also can carry a nine-foot hard dinghy aboard.

W I N N E R

Doug Frolich's 45-foot blue-water cruiser

This offshore passagemaker for a couple was created to keep it simple and make long-distance sailing and coastal cruising easy and efficient. Westlawn School graduate Doug Frolich from Larkspur, Calif., submitted a 45-foot moderate displacement sloop with tiller steering



(simplicity and space in the cockpit) and a double headsail rig. The self-tacking inner headsail trims to an articulated boom (similar in many ways to the patented Hoyt Jib Boom) that maintains sail shape on all sailing angles. Frolich's design innovation is to have the boom double as a pneumatic crane that can hoist the Walker Bay dinghy onto the foredeck easily, thereby solving the problem established in the competition's rules.

Under the water the boat is fairly conventional with a moderate fin keel (six-foot draft) and a low aspect spade rudder. The boat looks fast and

at 23,000 pounds, light displacement on a 41-foot, nine-inch waterline and with only 13 feet of beam, it should maintain high average speeds.

Two other notable features contributed to the design's success. The large cockpit, with the open transom, will be comfortable in port and will drain well if necessary at sea. The raised coachroof over the dinette and chart table permits the crew to maintain a watch or simply gaze at the scenery while protected from the elements. The design has three good sea berths and a large port cabin forward of the mast. The galley lies over the boat's center of gravity, where motion at sea will be minimized.

Judge Bill Langan noted that "the designer actually thought hard about the requirements of the competition and came up with a simple, innovative solution. This boat will be easy for couples to sail. The raised coachroof is interesting and with a little refinement the interior will work well."

Judge Rodger Martin commented that the boat "does everything well. The jib boom is a creative solution to the need to carry the dinghy on board and makes the boat an efficient self-tacker. The mast is quite far forward with a large mainsail so it should move well with the staysail up forward. Also this keeps the mast out of the living room."

Blue Water Sailing is pleased to award Doug Frolich first place in the 2004 design competition. He will receive as first prize a nine-foot Walker Bay RID dinghy.

feet and a huge area either on deck forward or on davits aft in which to carry the Walker Bay. Magnan solved the competition's puzzle by specifying davits.

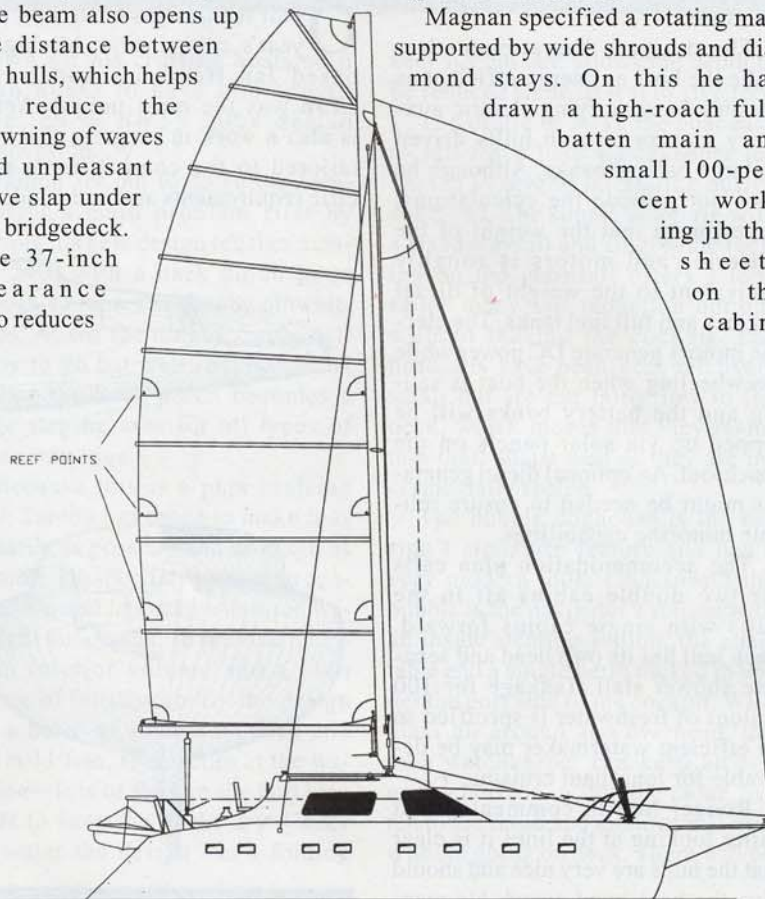
While it is a design rule of thumb to draw a cat's beam at roughly 50 percent of the length, the additional beam on this cat will accomplish several tasks for the designer. Wider beam adds quite a lot of initial stability thereby raising the force necessary to lift a windward hull or ultimately cause a capsize.

The beam also opens up the distance between the hulls, which helps to reduce the crowning of waves and unpleasant wave slap under the bridgedeck. The 37-inch clearance also reduces



wave slap. Lastly, the beam enabled the designer to draw quite narrow hulls for performance while still providing the crew with comfortable living accommodations.

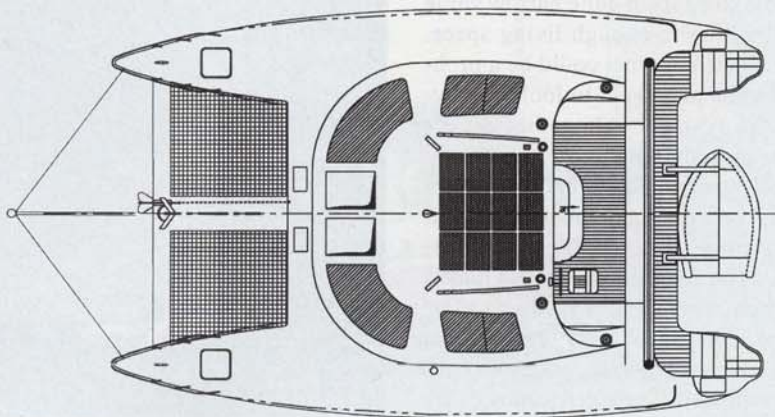
Magnan specified a rotating mast supported by wide shrouds and diamond stays. On this he had drawn a high-roach full-batten main and small 100-percent working jib that sheets on the cabin-



HONORABLE MENTION

Charles Magnan's 45-foot cruising catamaran *Wandering Albatross*

When you come to think of it there is no better cruising platform for carrying a rigid dinghy on deck or on davits than a catamaran. In the case of the submission from Englishman Charles Magnan, the 45-foot cat has a beam of over 28



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top and a large asymmetrical headsail for reaching. The boat is designed to perform with top predicted speeds well in the teens.

To boost sailing performance, pivoting centerboards have been drawn for both hulls that increase draft to seven feet; these will aid windward performance significantly. The boards pivot into centerboard boxes in each hull that are watertight and built into the interior furniture.

The designer has attempted to make the boat as energy efficient as possible by specifying electric auxiliary motors in both hulls driven by large battery banks. Although he does not provide the calculations, we estimate that the weight of the batteries and motors is roughly equivalent to the weight of diesel engines and full fuel tanks. The electric motors generate DC power while freewheeling when the boat is sailing and the battery banks will be topped up via solar panels on the coachroof. An optional diesel generator might be needed to ensure reliable motoring capabilities.

The accommodation plan calls for two double cabins aft in the hulls with single cabins forward. Each hull has its own head and separate shower stall. Tankage for 100 gallons of freshwater is specified so an efficient watermaker may be desirable for long-haul cruising.

Rodger Martin commented that “after looking at the lines it is clear that the hulls are very nice and should give the boat good speed. He managed to keep them quite narrow while still getting in enough living space. The electric motors could be a problem so he may want to look into hydraulic systems. Altogether a very clear presentation.”

Bill Langan noted that this was “a fairly conventional cat with several innovations, such as the engine systems. The centerboard system makes the boat beachable, which is a good thing. They also will really boost upwind performance, often a problem with cats. The electric motors are

interesting, but the weight of the batteries seems contrary to the idea of cat design.”

BWS awards Charles Magnan Honorable Mention for his design of *Wandering Albatross*.

HONORABLE MENTION

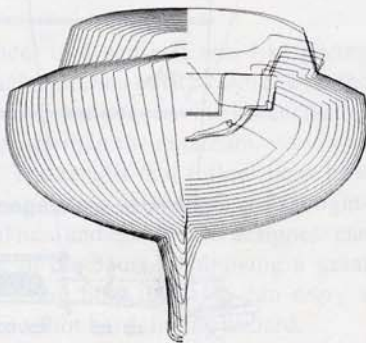
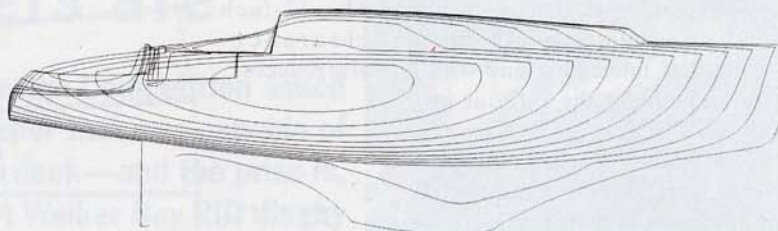
Jan Hendrick Andersen's LT36 lateen-rigged sloop

Of all the designs entered in this year's competition, Michigan-based Jan Hendrick Andersen's LT36 was the most unique. Yet it is also a work in progress that was tailored to the competition's specific requirements and in the judges'



estimation remains unfinished.

The problem of how to carry the Walker Bay dinghy offshore was solved by transforming the boat's transom into a preformed cradle into which the dinghy nests securely. With the dinghy launched, the cradle be-



comes a stern platform that can double as either a sunning patio or a scuba diving staging area. The dinghy is raised and lowered from its perch with the folding aluminum frame that also creates a stern arch over the cockpit. While this might be an extravagant use of hull space in a 36-foot cruiser—space that would have improved the cockpit—the dinghy storage solution remains innovative.



The lateen rig will not be familiar to many readers although it is an ancient rig and still popular in Asia, Africa and the Middle East. The large mainsail does the heavy lifting for the rig while the tiny jib and little balloon headsail will help stabilize the rig when either beating or running downwind. The main is attached to the long mast, which is affixed at its foot to the foredeck and then raised into the wishbone arch. The whole affair is held in place by the forestay, backstay and mainsheet. Easy to handle and powerful in light breezes, this lateen rig still needs to have reef points added and a way devised to keep the long leach trimmed when sailing free.

The hull is no less experimental, being a very flat canoe form with a long waterline and very low aspect keel and rudder. Judging from the drawings, the hull form is sweet and should have good directional stability if less than stellar windward ability.

The accommodation plan supplied was little more than a sketch, but the designer intends the LT36 to be a comfortable cruiser for a couple who intend to sail offshore.

Bill Langan commented that “the designer should get an A for effort and for his willingness to explore innovative ideas. Some are pretty interesting. The lateen could be made to work and might well be a good cruising option.”

Rodger Martin said, “He (the designer) has thought about every aspect of the design competition and has come up with what appears to be a very seaworthy little boat.”

BWS is pleased to award Jan Hendrick Andersen Honorable Mention for his design of the LT36.

HONORABLE MENTION

Yves Marie Tanton's Blue Water Ship

French-born, America-dwelling Yves Marie Tanton has been designing yachts for 30 years and has worked on everything from wood 12 Meters to oven-cured composite maxi boats. These days he is best



known for his cruising boats so it is an honor to have him submit a design to *BWS*'s 2004 design competition.

Tanton set out to solve the competition's main problem first by starting his new design (design number 240) with a back porch large enough to stow the dinghy athwartships. At sea the dinghy can be left ready to go but well strapped in; at anchor the back porch becomes a large staging area for all types of water activities.

Because this is a pure cruising boat, Tanton has opted to make it as versatile as possible and as tough as possible. He specifies aluminum construction and has drawn in three watertight bulkheads. To provide maximum interior volume and a high degree of initial stability the design has a beam of 15 feet on deck and a trim 11 feet, five inches at the waterline—lots of flare in the hull also tends to keep the decks dry. Under the water the design has a folding

keel system that allows the depth to be reduced from 10 feet to five feet.

The desire to make the boat easy to sail for a lone watchkeeper led Tanton to several interesting design solutions. The simple sloop rig with a fixed staysail and single-line reefing on the mainsail offers a lone sailor many sail reduction options without leaving the cockpit. The headsails have been kept relatively small but are cut fairly low to the deck, which means that they maintain their shape well as they are incrementally reefed.

The bubble doghouse is the design's signature feature and has a very modern look. Underneath the bubble is the navigator's station with an inside steering station, the chart table and a single berth tucked in under the port side of the cockpit. With glass all around and overhead, the lone watchkeeper can keep an eye on the horizon, watch the radar, listen to the radio and monitor sail trim without going on deck. There will be



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many a rainy night at sea when this design's owners will utter small words of thanks for the protection.

The master stateroom is aft and features a unique scissors double berth that can be closed into a double for couples or separated into twins for crew. This cabin has access to the main head through the large shower stall.

The galley is huge and will be the center of life aboard ship—as kitchens often are. Forward is the dinette to port and two easy chairs to starboard. Outboard to starboard lies an excellent pilot berth. The guest cabin and guest head are tucked into the forepeak. This is a boat for sailing far and living

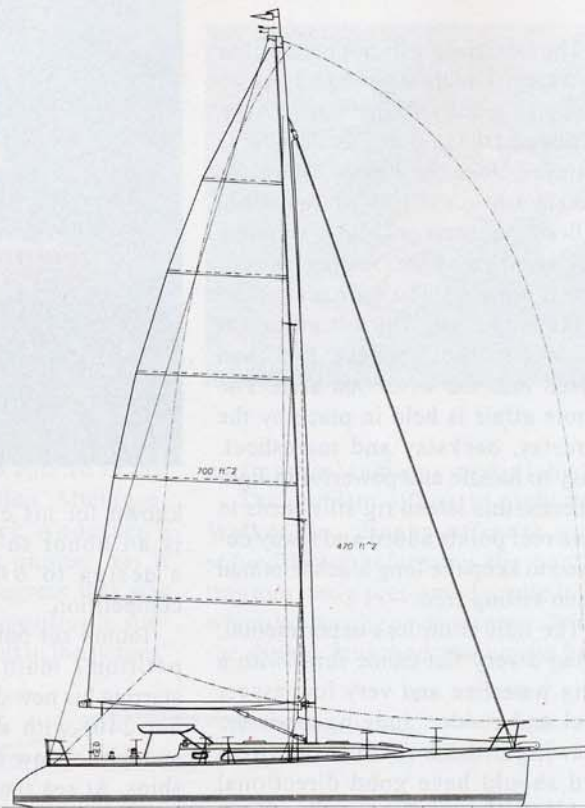
aboard for long periods in comfort.

Both judges agreed that Tanton had met the criterion creatively and had offered a highly professional design that would provide a two-person crew a uniquely capable world cruiser. *BWS* is pleased to award Yves Marie Tanton Honorable Mention for his Blue Water Ship.

HONORABLE MENTION

Steve Koopman's 45-foot Performance Cruising Sloop

A graduate of the Webb Institute and a long time practitioner of naval architecture, marine engineering and yacht design,



Steve Koopman brings a lot of knowledge and experience to the 2004 design competition. His 45-foot performance cruising sloop offers a thoroughly modern and utterly simple solution to the problems addressed by the competition.

To store the Walker Bay on deck he has created a wide, voluminous sugar scoop on the transom that will double as a huge swim platform and staging area for diving, sailboarding and so forth. Since the after deck extends over a portion of the scoop, the space for the dinghy forms a partial locker that will protect the dinghy while at sea.

Tackling the second part of the puzzle, which is to design an ultimate couple's cruiser for long-haul passages and living aboard, Koopman has taken a minimalist approach with an emphasis

on speed, elegance and simplicity. Regarding sailing performance, suffice it to say that the polar diagram shows the boat broad reaching at 13 knots or more in 25 knots of true breeze; in a more comfortable 12 knots of wind, the boat should close reach at better than eight knots.

The hull is well balanced and shows quite broad sections aft that should give it plenty of power when reaching—while providing the space for the dinghy. The rudder is a balanced spade that is large enough to add lift when sailing upwind and to keep a firm grip on the water when reaching in a seaway, i.e., in conditions when a smaller rudder might lose control. The keel is a low aspect fin with a large hydrodynamic bulb, which keeps the ballast low and adds to stiffness.

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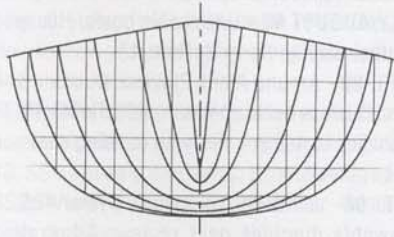
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The Judges—2004 Blue Water Sailing Design Competition



The fractional rig sports a large fully battened main with an extreme amount of roach for a cruising boat; Koopman is offering a lot of horsepower, but the trade-off will be early and frequent reefs for most couples. He shows a slightly overlapping headsail that is not self-tending, although this might be a good option. The sail will drive the boat well and is small enough to be easy to tack. For downwind work the boat has a retractable sprit from which either an asymmetrical chute or a flatter code zero reacher can be flown for maximum speeds.

The cockpit is large and comfortable and protected by a hard dodger with removable sides. The interior has been designed around a large U-shaped galley to port, a comfortable L-shaped dinette with opposing settee and a large and useful chart table. A dedicated sea berth has been drawn into the starboard quarter cabin; Koopman knows that this is the best place for the off watch and an adjustable berth really aids sleeping at sea. The forward cabin has a double berth to port and large lockers all around. Sensibly, only one large head is specified.

The boat has two watertight compartments, excellent storage aft, a large sail locker forward and a good arrangement for a single anchor and chain to be self-tending with remote equipment from the cockpit.

A thoroughly professional design—admired by the judges—that will work very well for an experienced couple who love to sail, the boat fulfills the design competition's criteria admirably. *BWS* is pleased to award Steve Koopman Honorable Mention for his 45-foot performance cruising sloop.

Bill Langan, a Webb Institute graduate, is the principle of Langan Design in Newport, R.I. Bill has designed custom cruising and racing boats for clients around the world. He started his career at Sparkman & Stephens in New York, where he followed Olin Stephens as

the firm's chief of design. South African Rodger Martin is also based in Newport, where he runs Rodger Martin Yacht Designs. Rodger has designed custom performance racing and cruising boats for clients around the world as well as the Quest and Aerodyne production lines.



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