

# 2012 Wye Island



## Electric Boat Marathon



by Charlie Iliff

**N**ed Farinholt did it again. In 2011, Farinholt beat PropTalk *Electrashell's* previous overall record by a hair, completing the course in two hours, 24 minutes with *Erged On*, an aluminum runabout equipped with Torqeedo electric outboard power. This year, with *Erged On II*, a new 19-foot lightweight skiff Farinholt built over the past winter, he was able to lower his own record by an impressive 17 minutes to two hours, seven minutes. And Farinholt says he isn't finished; he plans to break the two-hour barrier next year.

Although Farinholt knew his boat was fast, he wasn't quite certain he'd be able to secure the overall win as he approached the starting line. Nine boats lined up at this year's Wye Island Electric Boat Marathon (WIEBM), a 23.82-mile run down the Miles River, around Wye Island, and back. One attention grabber at the line this year was a superb new 22-foot Bruce Classic launch built in Canada. Patterned after a 1930s Chris-Craft, Ian Bruce's runabout has a proven top speed of 40 mph and pulls skiers with ease. With 40 kWh (kilowatt hours) of lithium ion batteries driving a water-cooled alternating current (AC) motor, Bruce calculated that with three people onboard, he had enough battery power to run the course at 20 mph, far faster than anyone in the history of this electric boat race.

Two starters were in the "Extreme" class. (The term "ridiculous" also comes to mind.) One Extreme competitor, Paul Kydd, has done every WIEBM, as a competitor or on the chase boat—including a solo run with his classic launch *Prologue* after one event was canceled due to gale warnings. Kydd still holds the multihull record in a Stillwater coach boat. This year's entry, however, was truly unique. Kydd equipped an aluminum jon boat with fore and aft hydrofoils—underwater wings that lift the boat, reducing its drag. The rig was powered by a homebuilt electric outboard, with a bank of lithium ion batteries that Kydd also uses in his electric-powered Ford pickup truck. Since early tests with the boat riding completely on her foils showed some handling



■ And the winner is... Ned Farinholt and his 19-foot lightweight skiff *Erged On II*. Photo courtesy of EBAA

problems, Kydd reduced the lift so that the last couple of feet of the hull stayed in the water. Tests showed that configuration to be fast enough to give Farinholt and *Erged On II* a run for the money.

PropTalk's *Electrashell II* was back again, having disgraced itself last year by making it only to the mouth of the Wye River before flooding its electronic battery management system. This year, her decks were better attached, and her stabilizing, outrigger-like amas were moved aft so as to splash less water in the face of the pilot—your perennially humbled scribe.

Jim Campbell returned with his *E-Canoe*, now sporting Torqeedo electric outboard power and early reports of significantly more speed than in his many prior marathons.



■ Jim Campbell puts the hammer down in his *E-Canoe*. Photo courtesy of EBAA

**T**he Wye Island Marathon is an electric boat race held every year during the annual Mid-Atlantic Small Craft Festival at the Chesapeake Bay Maritime Museum. This is a 23.82-mile marathon race with a mandatory 10-minute coffee break halfway through the course. The race course consists of approximately eight miles of open water with the balance in relatively sheltered water.

**Purpose:** Electric marathon boat racing is a safe, inexpensive, and fun way to drive technological advances in electric vehicle (EV) and EV materials design. To go the entire 24 miles, the boats, by necessity, must go fairly slowly, making this one of the safest forms of high-tech racing around. Many entrants use production boats, or other nautical EVs they already have. There is no need to spend huge amounts of money to be competitive in the Wye Island Electric Boat Marathon. We are trying to advance practical, everyday electric vehicle technology, so the equipment is not expensive rarified racing gear—and what better way to spend a day?

# 2012 Wye Island Electric Boat Marathon

continued...

He had hopes of threatening Farinholt's 2011 record. (He missed it by only three minutes.)

In 2011, John Kocher came to the event with his unique canoe, sporting a homebuilt electric outboard powered primarily by solar cells. He didn't enter the 2011 race but determined that with more development, his canoe could make the distance. This year he was ready, and his renewable energy system challenged the organizers to establish a new class. The "Committee" will no doubt consider that in the off-season.

EPower Marine's Todd Sims was up from Florida again, this time with a Saturn Kaboat inflatable. Epower Marine has perhaps become Torqeedo's most important U.S. representative, promoting Torqeedos with demonstrations on a wide variety of boats. Sims wasn't expecting an overall win, but wanted to show that the inflatable could comfortably and easily do the distance, and maybe place on a handicap basis. His third place made the podium, and he headed back to Florida with bragging rights: Torqeedos 1-2-3.



■ John Kocher brought his solar-powered skiff to the races again this year. Photo courtesy of H.S. McCann



■ Ian Bruce showed up from Canada this year to race his nifty, 22-foot electric powered runabout, capable of speeds up to 40 mph. Photo courtesy of EBAA

Tom Hesselink, of the Electric Boat Association of the Americas (EBAA) and Budsin Wood Craft again brought one of his gorgeous Lightning Bug 15-foot launches. As in previous years, the Lightning Bug was no threat to the speed record, but if there were a concours d'elegance competition, she would be at the top. Her immaculate workmanship was challenged this year only by the Bruce runabout, also superbly finished. Those two comprised the "Elegant" class.

Completing the 2012 field was the sole multihull entry: Phil Donahue's 20-foot Sweetwater pontoon boat. As with Hesselink's little Budsin launch, Donahue's isn't set up for speed. There is a good argument, however, that it is one of the best suited for the Wye Marathon. A leisurely day-trip around one of the prettiest waterways anywhere gives one more time to appreciate the scenery, and the quiet of electric boating.

But, the Wye Marathon is a race as well as a tour, and some competitors seek speed at the expense of comfort. Reliability is another unfortunate casualty. Eclipsing its 2011 debacle, the PropTalk *Electrashell II* leaped off the 2012 starting line... and promptly

## 2012 Wye Island Challenge Results

### Displacement Hull Category

Captain	Handicap Position	Finish Position	ET*	MPH	Length	Hull Speed **	MPH	Boat Type
Ned Farinholt	1	1	2:07.0	11.25	18.00'	6.54	172.0%	19' Speedster, Home Built
Todd Sims	2	3	2:43.0	8.77	15.00'	5.97	146.9%	Saturn Kaboat Inflatable
Jim Campbell	3	2	2:27.0	9.72	18.75'	6.67	145.7%	20' Old Town Canoe
Ian Bruce	4	4	2:38.6	9.01	20.78'	7.02	128.35%	Bruce 22' Classic Launch
John Kocher	5	5	3:49.4	6.23	16.0'	6.16	101.1%	Grumman Sq. Stern Canoe
Tom Hesselink	6	6	4:47.2	4.98	14.42'	5.85	82.6%	Budsin "Lightning Bug" Launch
Charlie Iliff, Jr.	N/A	DNF	N/A	N/A	N/A	N/A	N/A	44' Rowing Shell Conversion
Paul Kydd	N/A	DNF	N/A	N/A	N/A	N/A	N/A	Hydrofoil Jon Boat

### Multi Hull Category

Phil Donahue	N/A	1	4:44.0	5.03	N/A	N/A	N/A	Sweetwater 20' Pontoon
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Course length measured at 23.82 miles or 20.70 nautical miles. MPH/HS is the basis for displacement hull handicap award.

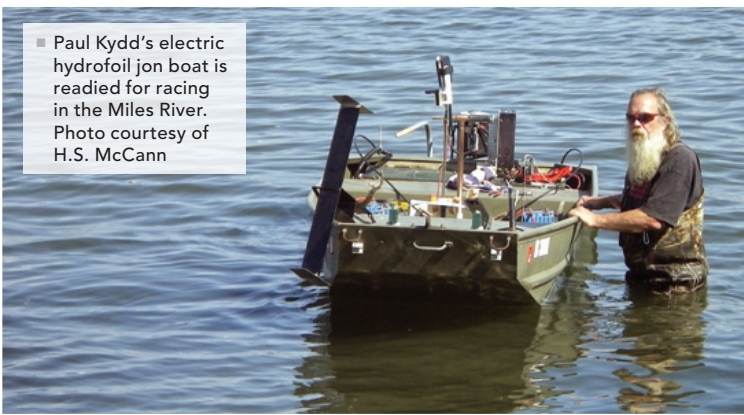
There is no handicap applied in the multihull category. \*Total elapsed time less 10-minute required stop.

\*\*Optimum hull speed (HS) calculated using commonly accepted formula: hull speed in mph =  $1.34 \times \sqrt{\text{ftWL}} \times 1.15$  (conversion from knots to mph).



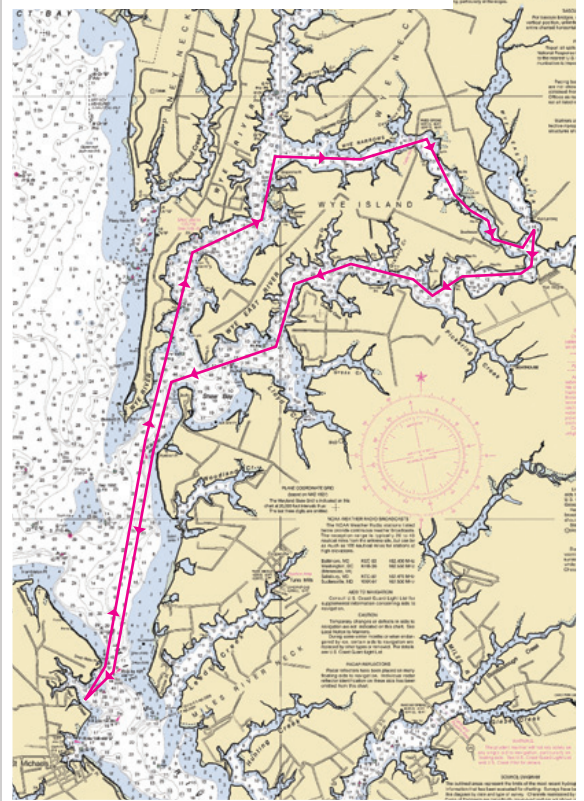
stopped, with a whirring noise but no movement. A jumped drive chain was reinstalled back at the dock, but jumped off again in about 100 yards after restarting. The rest of the fleet was out of sight, but those were 100 fast yards, so maybe 2013 will be better.

Similarly, when power was applied, Kydd's hydrofoil craft did a sudden 180-degree turn, as if wanting to immediately get back to her trailer. The lower-unit steering coupling had come loose. Dockside repair got Kydd on the way, but several miles behind the fleet. He seemed to be making good time for a while, but suddenly slowed—her foils had picked up some seaweed. Short runs punctuated by stops to clear weeds didn't seem the fast way around, and Kydd was pretty frustrated by the time he got into the Wye River. Then, the wake from the support boat, driven by your scribe who had abandoned the *Electrasbell II*,



■ Paul Kydd's electric hydrofoil jon boat is readied for racing in the Miles River. Photo courtesy of H.S. McCann

## Wye Island Electric Boat Race Course





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threw a dollop of water over the transom of Kydd's boat, which promptly shut down and refused to move again. Kydd had little good to say about this year's marathon.

The third casualty among the high-speed-potential entrants was Bruce's runabout, which suffered an inexplicable cooling pump failure. Without sufficient cooling water, the boat completed the course, but far below the hoped-for record speed. Bruce finished fourth, but a pleasant nine-mph trip around the island was a frustrating substitute for the run he brought the boat so far to make.

After his second overall victory in a row, Farinholt is hoping his wife Marilyn will let him spend the time tweaking and tuning the boat for next year's race. He wants to break the two-hour barrier and make it three wins in a row. Farinholt figures Marilyn



■ Phil Donahue sets a comfortable pace around Wye Island with his 20-foot Sweetwater pontoon boat. Photo courtesy of EBAA



■ PropTalk's Electrashell II in the pits before the race. We know she's going to win next year. Photo courtesy of H.S. McCann

will agree, since Farinholt ran the race course again the Saturday after the race—this time with Marilyn aboard—taking the time to enjoy the scenery. Marilyn will now concede that her husband's hobby actually has a redeeming characteristic—going around Wye Island is a wonderful trip to take in an electric boat.

The Miles River Yacht Club again lent its wonderful facilities to the race competitors, although this year it couldn't accommodate the awards banquet, which was moved to the Crab Claw in St. Michaels. All the finishers vowed to do it again next year. Bruce not only plans to set a super-fast record next year, but also to bring other Canadian electric boaters down for the event. As for the Kydd Hydrofoil and the Electrashell? Well, for next year's banquet, we'd prefer not to give master of ceremonies Hesselink the opportunity to point to us again and say, "... and over there at the losers table..."



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