

*the* **CRonicle**

Issue 59  
Summer, 2008

## CR 914 Class

A one-design class member of the  
American Model Yachting Association



[www.cr914class.org](http://www.cr914class.org)

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Send comments, articles,  
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to

the **CRonicle**

Dick Martin, Editor  
1206 Castle Bay Place  
Columbia, MO 65203  
[cr914m@gmail.com](mailto:cr914m@gmail.com)

## About the cover photo

YOU MAY RECALL having seen this photo, in smaller formats, in the *CRonicle* on two previous occasions. Because of its timeliness (it shows the venue for this year's Nationals) I picked it for this issue over 14 other excellent potential cover photos in my files that await their turn for glory — unless a photo that *you* take in the mean time is so good that it jumps to the head of the line. One of my all-time favorites, it was taken at the 2005 Nationals by Chuck Winder. It captured dramatic action and was technically excellent (note the depth of field that lets your eye discover those tombstones in the background, which immediately identify the venue as the famous Redd's Pond).

I picked it for another reason as well. It proves you don't have to be a professional photographer and use fancy equipment to appear on the cover and win the 18-month extension of your *CRonicle* subscription awarded to each cover photographer. Any current point-and-shoot digital camera can produce a

much higher resolution image than this one. Photoshop can do wonders, even with relatively low resolution images (this photo was shot in the usual horizontal /landscape format and measured only 1,712 x 1,368 pixels). Photoshop morphed that into a 1,930 x 2,558 vertical/portrait format needed for the cover. But the original wasn't tall enough to print the full width of the cluster of boats. Not to worry; Photoshop simply "cloned" some extra trees and water to increase the aspect ratio enough so it would fit without cropping a couple of sterns. It did lots of other near-magical tricks as well, for example subtly sharpening the details, and with its "Curves Adjustment" selectively brightening the features that I wanted to catch your attention and darkening others, such as the water, to intensify the drama. How long did it take you to spot the tombstones on the hill? They were nowhere near that noticable until Photoshop's "Dodge" tool worked its magic on them too. **■**

## We want ☞ you ☞ – at the 2008 Nationals

by Chuck Winder

**REDD'S POND IS THE VENUE** for the 2008 National Championships this fall. It was named in memory of Wilmot Redd, a Marblehead fishwife living next to the pond, who was executed as part of the infamous Salem Witch Trials in the 1600s. Her sin was not doing a turn after a flagrant foul under the existing RRS ☺. The cemetery you see on the cover of this issue dates from the 1600s.

The pond is a natural rain-fed basin in the stone ledge. Model boats have raced here since the late 1800s. During the depression, the WPA built the wall and walk on three sides of the pond. The features of the wall were designed by the Marblehead MYC members specifically for model sailboats. MMYC funds an expensive program that has been successful keeping Redd's weed free.

Racing on Redd's is fun and challenging, as any who have done it will readily tell you. It is 180 feet wide; its 500-foot long axis runs from SW to NE.

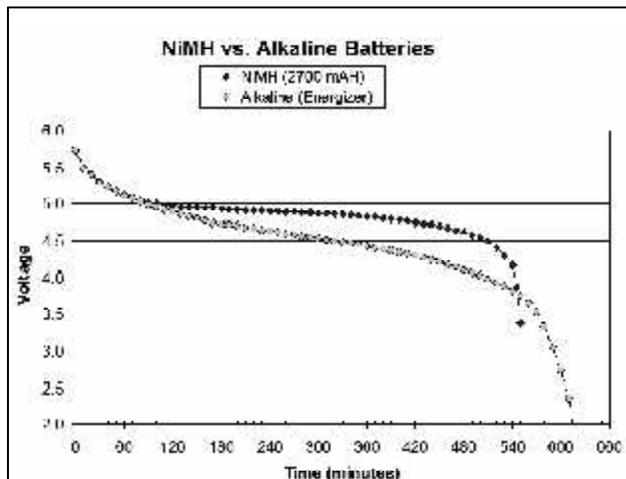
The local prevailing wind is SW, however trees and a couple buildings swirl the wind in interesting ways. With a NW wind that comes over trees, racing becomes especially interesting; windless holes are created while not far distant a boat will be overpowered by a brief gust.

The Corinthian Yacht Club, a prestigious club on Marblehead Harbor, has reserved all their rooms for CR 914 Nationals attendees. There are still a few rooms available, but they will go fast. Contact David Titus at CYC, 781-631-0005, to reserve a room. The regatta banquet and Friday night meal will be at the CYC, convenient for those staying there. The MMYC Nationals committee is working to ensure this will be an enjoyable regatta. At this time, a little more than three months before the regatta, there already are 14 entrants. The limit is 36 boats. We look forward to seeing you all in September. **■**

# The Great Battery Debate

by Dick Martin and Rick Martin

If you missed Rick's article entitled "A Case for Alkaline Batteries" in the Radio Activity column of the last issue of the *Cronicle* (Spring 2008, 58:11) by all means read it before tackling this one. Rick, a veteran RC sailor whose experience began before the rechargeable battery revolution, started out using alkaline (non-rechargeable) batteries, tried NiCds for a while, and then was convinced to switch again by the larger capacity of then-new NiMH batteries and their alleged freedom from the misnamed NiCd 'memory' phenomenon. Rick described how he became frustrated with complexities involved in the 'care and feeding' of rechargeable batteries, and disenchanted when he found that his NiMHs lost a third to a half of their initially measured capacity in three years. His article concluded with an outline of his well-designed alkaline battery strategy, which is based on two key features. One is the steeper slope of the voltage vs. time curve of alkaline batteries compared to NiMHs (see Fig. 1), which allows boats powered by them to warn their drivers when they are getting low in plenty of time to change to fresh ones before things quit completely. The other element, which came as a surprise, is that Rick's transmitter continues to operate normally at voltages lower than those supplied by batteries which, placed in series in a 4-cell battery box, have fallen below the 4.5 v level at which the boat servos begin to act up. Thus Rick has found that he can 'recycle' the batteries from his boat to his transmitter, where he finds that they continue to work so long that he rarely needs to put brand-new batteries in it.



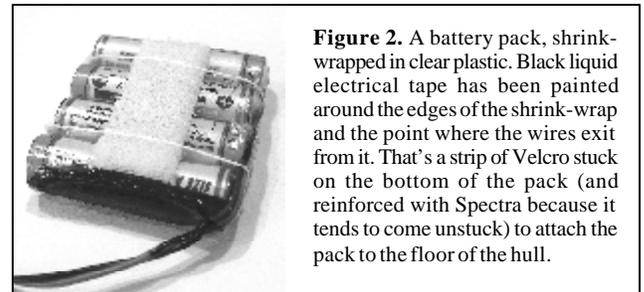
**Figure 1.** Voltage vs. time curves for a 4-cell 2700 mAh NiMH battery pack and a 4-pack of alkaline batteries. The NiMHs (black diamonds) have a long plateau between 5.0 and 4.5 volts, while the alkalines' voltage (gray circles) more steadily decreases toward the 4 volt level at which servos stop working. Both packs were discharged through a resistance of 20 ohms, yielding an average current flow of ~ 200 to 250 mA, approximating the current drawn by the receiver and servos sailing in light air (the same method was used to generate the data for all of the graphs in this article).

## A simple NiMH Strategy

*Full disclosure:* I (Dick) am an inveterate tinkerer, who loves to learn new technologies. I literally built some of the first electrocardiogram-monitoring equipment in the then-newfangled coronary care unit at the University of Missouri Medical Center back in the 1960s by cannibalizing electronic components from research labs and the cardiac catheterization lab — and some 40 years later a former medical student identified me not from my appearance but from the instrumentation he noticed on my bicycle. So when I switched from full-scale to model sailboat racing eight years ago, playing with the technology of radio control proved to be great fun. In addition to the "Martin Boat Works" in my basement, I gradually built and equipped the "Midwest Branch of the CR 914 Laboratory" (MBCRL — named after Chuck Winder's workshop which generated myriads of articles about batteries in his *CR 914 NEWS*). Over the years, MBCRL has acquired a moderately sophisticated battery analyzer and I have built an assortment of wiring harnesses that allow me to insert voltmeters and ammeters at various points in the circuits of my transmitters and boat electronics to study their behavior and performance. My latest acquisition is a digital multimeter that interfaces with my computer, which in conjunction with Microsoft Excel and its charting capability produced the graphs in this and my other recent battery and radio articles. So, you see, what for Rick is an undesirable complication, is for me yet another fascinating hobby.

You don't need a lab and fancy equipment to apply this NiMH Strategy, possibly enjoy modest savings, and avoid the hassle of keeping track of the stocks of fresh and partly depleted alkaline batteries that Rick must go through every year. All you need to do is:

- 1. Understand a few fundamentals of Direct Current theory:** Review "Rechargeable Batteries 101" in *CRonicle* 52, p.8-9 (or wait for a more complete discussion by the same title in the upcoming CR 914 feature section of *Model Yachting* 153 this fall).
- 2. Use high-quality battery packs:** I use 24 2,500 mAh Sanyo AA cells soldered into two 'flat packs' for the boat and two 'square-packs' for my Spektrum DX6 transmitter. If you shop around for price and build the packs yourself (see Chuck Winder's article about how to do so in *CRonicle* 53, p.6) Sanyo industrial 2,500 mAh AA cells can cost as



**Figure 2.** A battery pack, shrink-wrapped in clear plastic. Black liquid electrical tape has been painted around the edges of the shrink-wrap and the point where the wires exit from it. That's a strip of Velcro stuck on the bottom of the pack (and reinforced with Spectra because it tends to come unstuck) to attach the pack to the floor of the hull.

little as \$2.50 each. Packs cost considerably more if you order them already built.

3. **Take good care of them:** Waterproof the packs for the boat by shrink-wrapping them and sealing the gaps with liquid electrical tape (\$7 at your local hardware store), as shown in Fig. 2. Be careful not to short their wires or drop them on hard surfaces. Don't ever let them run all the way down, which will damage if not ruin them. And, *most importantly*, use only 'good' chargers — see below.

4. **Charge them wisely, and not too 'well':** I am puzzled by the magnitude of the loss of capacity that Rick experienced over two or three years with his NiMH batteries. That has not been my experience, and I wonder whether Rick used a 'bad' rapid charger or a defective battery analyzer/cycler that gradually caused damage. You do not need either of those devices, but if you decide you must have one to play with, it will not overcharge or too rapidly/excessively deplete your batteries; some fairly sophisticated things need to happen to detect the subtle 'peak' during rapid charging of an NiMH battery. To be on the safe side, never use anything but so-called 'trickle' charge (the technically correct term is 'C/10' or 'maintenance' charge; see "Battery Maintenance Charge" by Chuck Winder in *CRonicle* 52, p.10-11). A complete discussion of this slow C/10 charging is beyond the scope of this article, but you can read about it and why it is safe in the NiMH Chemistry section of "Rechargeable Batteries 101." The 'C' in C/10 stands for Capacity. Using a C/10 charge rate (in milliamps) of no more than one tenth of a battery's rated capacity (in milliamp-hours) prevents the damaging release of free hydrogen gas that occurs when a battery is overcharged rapidly.

Buy a cheap, little, simple, slow black-box charger (sometimes called a "wall wart" but which for fun I will acronymize SSBBC, or SBC for short); and pay no attention to the voodoo of battery analysis, geeky stuff like zero dV/dt peak detection, battery cycling to prevent the dreaded (and, with NiMHs, largely fictitious) "memory effect," and all the other hype and unadulterated BS the companies that market fancy analyzers and chargers throw at you to try to justify the high price of an adequate one. However, before you buy a SBC you need to do some geeky math: divide the capacity of your batteries by 10. The number you get is the maximum charge rate to look for. The usual SBC for RC flying has two ports, one for a receiver battery and one for the transmitter. Each port usually delivers around 50 mA (~C/10 for the low-capacity rechargeable NiCds that many flyers still use). At 50 mA it would take  $2,500 \div 50 = 50$  hours to charge my fully depleted batteries (yikes, more than two full days). But you can find SBCs that will deliver close to the C/10 of your high-capacity batteries for only a few dollars more; for example, the one I use, which delivers 150 mA to my boat battery and 120 mA to my transmitter, costs \$15. Those currents are safely below my batteries' C/10 of 250 mA, but they will pump in at least 1,500 mAh between the time I get home from racing and when I head for the pond the next

morning, which will replenish the mAh that would have been 'burned' in about five hours of continuous use that day, and will be plenty to allow them to serve as back-ups for the fully charged spare batteries that I will start out with on day two of a regatta.

5. **Keep 'em charged:** NiMH batteries have an important Achilles' heel, called self-discharge. Unlike alkalines, which have a very long shelf-life, NiMHs sitting on the shelf steadily lose capacity, as much as 20% in a week (see Fig. 3). If you don't charge them quite often, when you need them they may let you down. Many 914ers dodge that issue by leaving their batteries attached to a C/10 SBC full time. That practice is a bit controversial (you can read arguments for and against it in the "Battery Maintenance Charge" article cited above), so to be on the safe side, after a couple of days of continuous C/10 charging of my depleted battery packs I switch them to intermittent charging (two hours out of every 24, about 250 mAh per day, more than enough to 'top off the tank' each day and replace the capacity lost from self-discharge), using an inexpensive appliance timer shown in Fig. 4.

6. **Optional – test 'em once in a while for reassurance:** If you follow the above 'rules' your NiMH batteries should work well for at least three years and retain at least 80% of

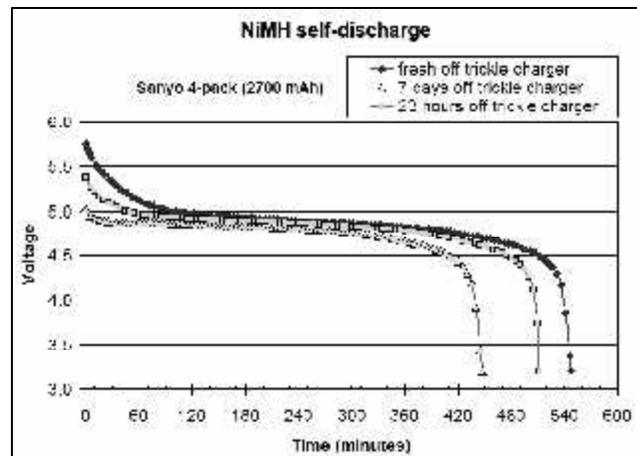


Figure 3. Voltage vs. time curves for a 4-cell 2700 mAh NiMH battery pack showing the self-discharge phenomenon. When the curves are shifted to the right until their rapidly descending limbs line up, all three plots look identical except for about 30 minutes and 100 minutes that have been lost from the early portions of those two partially-discharged curves.

Figure 4.

A \$12 RadioShack 61-1068 appliance timer is shown on the right. You can simply plug your SBC into it, although in this photo the home-made circuit box into which the SBC is plugged gets its power through the

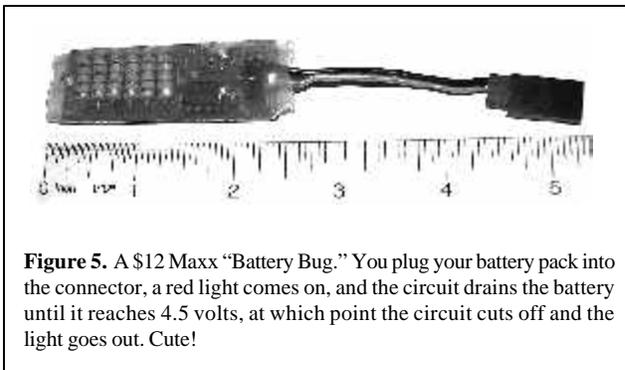


cord that is plugged into the side of the timer. The toggle switch at the top of the circuit box controls whether the SBC charges continuously (switched to the left) or intermittently (switched to the right as shown)

their original capacity. I test mine twice a year, at the beginning of the season and a month before the Nationals, just to be sure. You don't need fancy gear to do so.

**a. Transmitter batteries:** With your batteries fully charged, turn on your transmitter and record how long it runs until its alarm sounds. That is your battery capacity in hours. If you wish, you can multiply that number by the current draw of your transmitter (e.g., 265 mA for a Hitec Ranger II, 160 for a Futaba Attack SR, 265 for a Spektrum DX6) to express your measurement in mAh.

**b. Boat batteries:** For them you need a simple circuit that will draw current at a rate that approximates the 200-300 mA drawn by your receiver and servos while racing under normal conditions. You could build one yourself and use a voltmeter, the way Chuck Winder described eight years ago in "What is your Battery Capacity?" (*CR 914 NEWS* Issue 22, p.6). But I recently discovered a clever and inexpensive "Receiver Battery Bug" (Maxx Products Model ACC180, [www.maxxprod.com/mpi/mpi-9.html](http://www.maxxprod.com/mpi/mpi-9.html), see Fig. 5) which, although marketed to perform the unnecessary ritual of 'cycling' battery packs, will evaluate their capacity as well. It drains receiver batteries through 20 ohms, essentially simulating the 200-300 mA load applied by a boat's receiver and servos. Then, to avoid damaging the batteries it automatically shuts off when their potential falls to 4.5 volts. So all you need to do is measure the time it takes for your fully charged batteries to reach that point, and multiply by 240 (for a 4.8v 4-cell battery) or 300 (6v, 5-cell) to convert to mAh.<sup>1</sup>



**Figure 5.** A \$12 Maxx "Battery Bug." You plug your battery pack into the connector, a red light comes on, and the circuit drains the battery until it reaches 4.5 volts, at which point the circuit cuts off and the light goes out. Cute!

### Other thoughts about the Alkaline Strategy

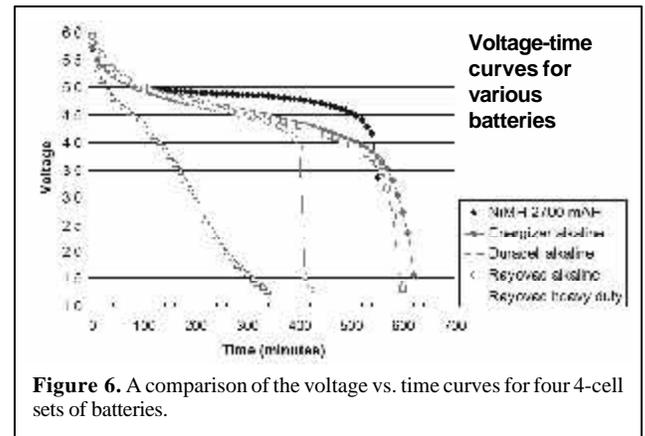
**1. Water:** Rick told me that he uses the battery box supplied in the kit and has not had problems with water-induced short circuits or corrosion. I was surprised, having seen lots of problems caused by the box getting wet, and queried him about that. Here is his reply: "When racing in big waves and salt water I always seal my battery box in a small zip-close plastic envelope. I always check for wetness of the batteries/box after sailing and dry everything if there is moisture. I

<sup>1</sup> The MBCRL recently tested a Maxx Battery Bug. It worked pretty much as advertised. To minimize size and cost, I guess, the gadget uses six 120 Ω resistors in parallel, which get quite hot. The voltage cutoff proved to be 4.5v rather than the advertised 4.0v, but that is not a problem because at that point on a 4- or 5-cell battery's curve its voltage is falling very fast.

never leave the batteries connected in the boat; that is a sure recipe for corrosion or black wire disease, especially if it's at all damp inside." If you use a battery box, be sure you do something similar.

**2. Costs:** If you don't sail very long or very often, alkaline batteries will save you money<sup>2</sup>. But if you race as much as I have been doing (about 16 days of local fleet racing, plus several two-day regattas, per year) the NiMH Strategy outlined above is less expensive, although not as much as I had expected before I did the math. Alkaline Strategy: ~64 hours of racing per year; ~9.3 hours of sailing per (high quality) alkaline cell = 82 cells per year; 53¢ per cell (Wal-Mart bulk price); that comes to \$131 for alkaline batteries in three years. Compare that to the NiMH Strategy's costs: a total of \$30 for a dozen 2,500 mAh Sanyos (\$60 if you want backups like mine), which should last for at least three years. Throw in the one-time cost of the simple supplies and equipment itemized above (\$7+\$15+\$12+\$12 = \$46) and you still come out ahead (although not if you buy your battery packs already made).

<sup>2</sup> Incidentally, it looks like you get what you pay for when you buy alkalines. Look at Fig. 6. The four Rayovac alkalines (white circles) shown there cost 39¢ each, 14¢ less than Wal-Mart's price for Energizers (gray circles) and Duracells (white squares), but they lasted only about two thirds as long. And it doesn't pay to use plain (zinc-carbon) batteries. The "heavy duty" ones in Fig. 6 (triangles) cost only 23¢ apiece, but they would have powered a boat for less than two hours.



**Figure 6.** A comparison of the voltage vs. time curves for four 4-cell sets of batteries.

### Rick's rebuttal

I have to say, when Dick asked me to write a rebuttal of his case for NiMH batteries in the CR 914 he didn't leave a lot of room for debate. I certainly can't fault his methods, his advice or his thoroughness. And it's clear we agree that the choice of battery type is going to be very dependent on how often and how much you sail. The fact that I sail my CR 914 about 30 hours per year vs. Dick's 64 hours, does help my case for using alkalines.

His analysis, however, has turned up some interesting differences in the power consumption of our transmitters and boats which also support my decision. Seems that my low-end AM Japanese receiver and servos consume about 2/3 the power of Dick's Hitec/Spektrum set-up. So by my calculations, using Dick's method, I should be able to get by

on about 26 cells per year ( $82 \times (30/64) \times 0.67 = 25.7$  cells). And sure enough, in actual practice I haven't needed more than 24 per year.

I also spend a bit less per battery than Dick's 53¢ figure. I see Duracell alkalines for sale on the web for 40¢ apiece, which is about the same price that equivalent batteries sell for here in Japan. Through my practice of cycling my boat batteries to my transmitter when they no longer offer smooth sail servo operation (or sooner if my Tx batteries give up first) I seldom have to put new batteries in my Tx, so my annual battery budget is basically \$10, or \$30 for three years (sailing half as much as Dick does) vs. Dick's 3 year NiMH-based cost of \$106. As you can see that's an easy decision for me, even if I double my hours of sailing.

OK, but some of you reading this are saying "Of course Rick can get by for less; he sails less and his boat and radio consume less current; that's not my situation so it won't work for me." Well, let's take a closer look at that. Obviously, the price you are paying and how many alkalines you need have a big influence on the relative costs. If Dick is willing to keep an eye out for premium batteries at around 40¢ apiece, the cost of operating *his boat* on alkalines for three years can be reduced from \$131 to \$98. Ah, but what about Dick's transmitter you ask?

Since my transmitter draws just over half the current of Dick's, it's arguable that Dick could only expect to get about half the benefit using my boat to Tx recycling method, and therefore Dick can eliminate only half of the alkaline transmitter batteries he would otherwise need. So I would predict he will still need about 72 Tx batteries over 3 years ( $(64/(2800/265) \times 8 \times 3)/2 = 72.6$  cells) which will bring his total 3-year alkaline operating cost to \$127, only \$21 more than the cost of running NiMH for 3 years. For many radio sailors this may be ample justification for their care and feeding

of NiMH batteries, but for some it may be worth the \$7 per year to never have to look after NiMH packs.

And remember Dick has the skill to solder his own battery packs together (and trust me it takes considerable skill to get a good solder joint without overheating a cell and damaging it). Dick fairly pointed out that the picture is different if you are purchasing preassembled packs. The difference in cost of buying vs. building packs reverses the result and gives alkalines an advantage.

So depending on your hobby skills and passions, I still believe there is a case for alkaline batteries for the CR 914, especially if you are a newcomer or a casual enthusiast.

### The bottom line

It looks like there is a clear winner of this debate. And that winner is *you!* Both strategies work well, when implemented carefully.

If you sail a lot and build your own battery packs, you can save money with the NiMH Strategy (an electrical engineering degree is *not* required to do so effectively). And you don't have to build battery packs: NiMHs can be used in battery boxes too. (Nor do you need a graduate level course in soldering to build your own batttery packs. Chuck Winder gives you complete soldering instructions in "How to Make Your Own Battery Pack" in *CRonicle* 53, Winter 2007. Practice by building one or two using cheap disposable AA cells; by then you will be highly qualified.)

If you don't sail enough for the economic incentive of the NiMH Strategy to kick in, or if, like Rick, you find it an unnecessary complication, the Alkaline Strategy is a great alternative, particularly now that you understand the importance of different time-voltage curves and have learned Rick's boat-to-transmitter 'recycling' trick. ■

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## Lithium batteries

by Chuck Winder

**NONRECHARGEABLE LITHIUMBATTERIES** are ruled illegal for use in the CR 914. The reason is the risk of fire when used in a model boat where they are guaranteed to get wet. Energizer® e2 Lithium is one brand of disposable AA size lithium cells. From Energizer Lithium *Product Safety Datasheets*: "The contents of an open battery, including a vented battery, when exposed to water, may result in a fire and/or explosion." There are no such warnings for alkaline, NiCd or NiMH batteries.

Rechargeable Lithium batteries are also not legal for the CR 914. They are not available in AA size and pose the same fire risk. ■

## A CRonicle index is coming

by Dick Martin

**SERENDIPITY!** Having completed two of those humongous line-by-line comparisons of the CR 914 Excel-based class registration database with AMYA's web-based membership listings—recall that each class is now required by to furnish accurate class membership data to AMYA's Membership Secretary—Mrs. Class Secretary recently asked if there were any other detail jobs she could volunteer for. Who'd a thunk that AMYA's onerous membership tracking requirement would spin off a really valuable service for 914ers?

Ever since I took over four years ago, I have hoped to find time to update the indices of articles in *CR 914 NEWS* and the *CRonicle* that Chuck

Winder used to publish intermittently. But the task always looked too daunting, and I rationalized that the ability to look for words in the archive of back issues in the class website, using the simple [Ctrl-F] search technique, took the place of an actual physical index. Of course, from trying to track down the old articles I refer to frequently in these pages, I know better.

It will take several months for Carole to complete her article-by article search of every back issue of the *NEWS* and *CRonicle* and for me to generate the hard copy and spreadsheet versions, but hang in there. An up-to-date index, with subsequent annual updates from then on, is coming! ■

## FLEET STREET

### San Diego Yacht Club Model Yacht Fleet

#### New members keep our fleet afloat

by Dick Huntington, FleetCaptain

IT HAPPENS EVERY YEAR, some of the old regulars stop showing up to race their CR 914s. But thanks to the influx of new members, our fleet is as active as ever. Recent additions to our fleet membership include Brad Alberts (1186), Randy Poe (1487) and George Szabo III (1466). All three are experienced sailors but new to model yachting.

George grew up in and around boats at the San Diego Yacht Club and has won many yachting accolades including the Snipe Class U.S. National Championship four times (1997-2000) and the North American Championships four times.

Although George is still learning the ropes on tuning the CR 914, his racing skills are superb. In a recent Friday evening regatta off the SDYC guest dock, George and his purple-hulled CR No. 1466 took five firsts out of nine races and won regatta high point honors. In very light winds, he found it advantageous to reach off and tack downwind. His starting tactics were aggressive, but nearly always paid off. The "experienced" CR 914ers have a lot to learn from George.

Speaking of old timers, fleet mainstay and CR 914 AdCom member Jean Malthaner is celebrating his 80<sup>th</sup> birthday in July. *Happy Birthday, Jean!* 📌



photo credit: Elaine Huntington

George Szabo tweaks his boat between races.



photo credit: Elaine Huntington

Reflections - Drifting around the weather mark on a Friday evening at SDYC.

### Dry Pants Model Yacht Club

by Brian Jobson

FOR THE MONTH OF APRIL (plus March 30) the DPMYC ran nine events for CR-914s not including the 2008 New England Spring Regatta. Including Sundays and Tuesday evenings we ran a

total of 97 races. A total of 21 boats participated in one or more of the nine events. Our highest turnout was 17 boats on the line and our lowest was 10 boats (on the Tuesday evening after the

2008 NESR). Our average for boats on the line over the 9 events has been 13 boats. 📌

Editor's Note: **Wow!**



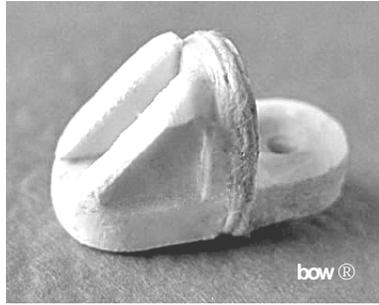
# THE BOATYARD

## Dumb Thumb Survival

by Phil Adams

I RECENTLY HAD ONE OF THOSE “I can’t believe I just did that” moments that prompted me to come up with a way to additionally strengthen the jib boom eyelet beyond the improvement of wrapping line around it found on our website.

On a windy day at the lake my receiver battery came loose from its Velcro securing tape and slid towards the stern where it became stuck between the deck and the hull. I was trying to dislodge it by striking the bow with my palm when my thumb accidentally hit the jib boom and the eyelet cracked and bent backwards. Since I had dutifully reinforced it with line, the fitting did not separate and I might not have even noticed it except the mast was now very wobbly from front to back. After marveling at my klutziness, I realized my thumb had not hit the boom any harder than it might be struck during a collision on the water. At a regatta such an accident would mean having to replace the fitting, probably causing me to miss at least a couple



of races. I don’t want any of my throwouts caused by gear failure. So I began thinking about how to further strengthen that troublesome eyelet.

You could fabricate one out of metal, but I believe the solution I came up with is much easier and almost as strong.

Cut two small triangular pieces of plastic and CA them to the back of the eyelet on either side of the hole where the forestay attaches (see photo). If you remove the eyelet to add these braces, make sure you leave enough room between them for the screw to fit. If you add them while the eyelet is still in place and forestay attached, be careful not to CA the forestay to the fitting! Now you have an eyelet reinforced

from back to front in the direction the force from hitting the jib boom would be transmitted. With this modification in place, my boat should be able to survive the occasional lapses by my blockhead thumbs both on and off the water. **■**

## Holey Hydraulics!

by Dick Martin

FOR THE LAST SIX YEARS I HAD THOUGHT that I was as meticulous as I could be about keeping water out of my boat. I drastically reduced the size of the hole through which the steering rod exits the hull (see *CR 914 NEWS* Issue 20, p.7, 1999) and I surrounded the rod with a Vaseline-impregnated sponge ‘gasket’ glued to the inside of the cockpit wall; I built a leak-resistant hatch cover (see *CR 914 NEWS* Issue 40, pp. 9-10, 2004); with silicone sealant I closed the hole where the common sheet enters the hull on its way to the servo arm; and just in case any of the screw holes for the various deck fittings penetrated the deck I bedded each screw in a dab of silicone sealant as well. But every time *Mariah* sailed in survival conditions with lots of diving, broaching and extreme heeling she still shipped enough water to require draining up to an ounce after every heat. I assumed that most of that water must leak around the edges of my hatch cover.

This spring I finally took a long hard look at the one remaining source of leakage, the hole where the common sheet exits the hull on the port rail. It measures about 1.75 millimeters in diameter and seems fairly innocuous to the naked eye — although in a macro photo like the ones shown

here it looks more impressive. Its area is about 2.4 square millimeters ( $\pi \times (1.75 \div 2)^2$ ); subtracting the cross-sectional area of the sheet ( $\sim 0.8 \text{ mm}^2$ ) that leaves an orifice of about 1.6 mm<sup>2</sup> through which water can enter the hull. How much water will flow through an orifice that size? To answer that question I submerged the port rail in a bath tub with the sheet exit hole about an inch below the surface of the water for

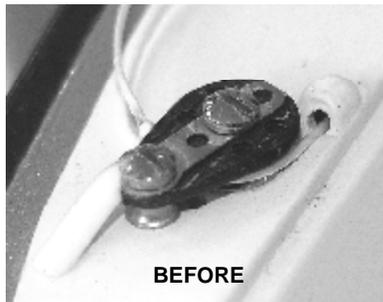


120 seconds and measured the amount of water that I subsequently drained from the hull. The (static) orifice flow rate proved to be a surprising 1.2 milliliters per second, 2.45 ounces per minute. Holy mackerel! That adds up to more than the contents of a 12-ounce soft-drink can in five minutes!

That orifice faces aft, and conventional wisdom says that when the boat is moving forward with the port rail awash considerably less water should enter because of the Bernoulli effect — indeed, it could be argued that the sheet hole acts like a miniature suction bailer. But Jean Malthaner points out that the turning block immediately aft of the orifice may generate enough local positive pressure in front of it to offset any suction effect. And who knows how fast the boat has to be moving to produce significant negative pressure at that orifice anyway? I could not

find a way to make the required hydraulic calculations, nor could Chuck Winder help me when I requested consultation from the CR 914 Engineer. And, anyway, at least some of the time when that hole is under water the boat is lying on its side in a broach, and there is certainly no suction then.

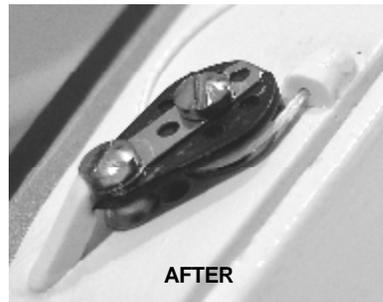
So why not reduce the size of that hole, like I had done around the steering rod? How big did the gap around the common sheet need to be to minimize friction? Certainly not as big as that (by then, to my



mind's eye, literally *gaping*) hole. To try to find out, I carefully drilled smooth-edged holes of various sizes in a 1 mm thick piece of styrene plastic. When I pulled a Spectra string back and forth through the holes I could detect no difference in friction until the hole became too small to thread the Spectra through it. I ended up choosing a hole of unknown diameter, made by a carbide micro bit the size of which was not labeled, somewhere between 1/32 of an inch (~0.8 mm) and 1.0 millimeters in diameter, probably a # 64 (0.914 mm) bit. I drilled a hole that size in a small piece of 1 millimeter-thick styrene, shaped it to fit over the sheet exit site, carefully filed the face of the exit port flat, and CA glued the styrene with

its now-tiny hole in place.

Although *Mariah* has not yet raced in drifting conditions to see if friction around her common sheet prevents her booms from going out with light puffs as easily as other boats' booms do, when I compared *Mariah* to *Woodstock* whose



sheet exit hole has not been modified I could detect no difference using my breath or gravity (heeling the boat slightly) to simulate light puffs. But it was easy to detect a *big* difference in *leakage*. When I per-

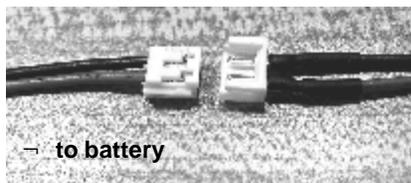
formed the static leak (bathtub) test after modifying the hole, I had to leave the rail submerged for five minutes to accumulate enough water in the hull to measure accurately. Reducing the size of the hole reduced the static leakage rate by 95%, to 0.07 ml/sec or 0.15 ounces/min. And here's the real kicker: after sailing for 40 minutes in 12-20 knot winds, intentionally letting *Mariah* dive and broach multiple times, when I hauled her out, dried off her hull (so water trickling off her deck wouldn't contaminate my measurement) and then pulled her cork and tried to measure the amount of water that would drain from her hull, only three or four *drops* emerged! 📌

## RADIO ACTIVITY

### Spektrum DX6 transmitter battery connectors

by Dick Martin

**IFINALLY FOUND A SOURCE** for those tiny white plugs you need to connect the transmitter battery pack to the Spektrum DX6 transmitter. Order from Batteries America ([www.batteriesamerica.com](http://www.batteriesamerica.com), 608-831-3443). On their website click [RC Hobby] [Transmitter Connectors]



and scroll down until you get to *JR PROPO*. The male one that attaches to the battery pack is "*JR PROPO 2-pin Flat White*." It costs \$3 plus shipping.

Even better, you can also buy the female connector, identical to the socket attached to the circuit board in the battery compartment of your Spektrum transmitter. It is called "*JR PROPO CHARGING END for 2-pin Flat White TX connector*" and also costs \$3. Why would you want one of those? So you can build an adaptor like the one shown

here to charge your spare battery outside the transmitter (the other end of the adaptor is a "Size M Coaxial DC Power Plug" that you can purchase at Radio Shack for \$3, which mates with the Tx power plug on your charger. 📌



### Winder One-ders

In the beginning, God created the earth and rested. Then God created Man and rested. Then God created Woman. Since then, neither God nor Man has rested.

Give a man a fish and he will eat for a day. Teach him how to fish, and he will sit in a boat and drink beer all day.

# Developing a country pond for CR914 sailing

## Part 2 of a 3-part series

by Dan Butterfield, Fleet Captain/Secretary of the Blue Ridge Sailing Club, Central Virginia

IN THIS SECOND PART OF MY SERIES ON developing a country pond suitable for sailing I'll tell you the *good, the bad, and the difficult* findings resulting from taking the investigative steps that I discussed in the last paragraph of Part 1 in the last issue (see *CRonicle* 58 p.12):

1. I found the Church School Minister and Headmaster who owns both ponds enthusiastic and supportive, but he wants to learn more *feasibility* details based on what I find before granting use to our club.



2. He was happy about the pond-owner \$1M insurance we could provide (thanks for the heads up on that, Dick).
3. He approved our providing a small platform at water's edge built out over the water at either pond for sailboat launch/recovery (see photo taken at water's edge).
4. Vehicle road access and parking near the north pond looks pretty good (see

photo of car parked at proposed launch/recovery area).

5. As you can see from the panoramic photos in the first installment and this one, both ponds are in an open area which provides ample and usually steady, unidirectional wind.
6. Since this was church property alcoholic beverages would not be allowed by club members or onlookers, even during regattas!
7. The pond bottom is soft mud varying from 3 to 15 feet depth, strewn with debris, water grass, weeds, and perhaps a few bones and carcasses (cows that is).
8. During the year both ponds are used

for crop irrigation to supplement normal Blue Ridge Mountains area rainfall or lack thereof, sometimes significantly reducing the water level. (please, no more drought this year).

9. There already is a little algae in some of the coves. It may become prohibitive when the weather gets warmer.

So that's it, until next report which will include results of our actually getting on the water and trying out both ponds. I am expecting that sailing in this new rural area will result in increased membership

in the Blue Ridge Sailing Club for all ages, although we might have to consider another less expensive RC boat since the surrounding community's folks might find the CR914 a bit expensive. Any suggestions?

Finally, take a look at the new panoramic photo I took recently of the north pond last week, but this time standing on the opposite bank (notice the Church School in background). 

## A brief update on CR 914 kits and sails

by Dick Martin

LAST YEAR THE AMERICAN COMPANY that had imported CR 914 kits from Japan stopped doing so. Negotiations by Chesapeake Performance Models to import directly from AG Japan proved to be difficult, but this winter an agreement was reached and a new order of kits and sails was shipped from Japan this spring. When the shipment arrived in April, however, the sails were missing. Efforts to locate them have failed, and AG Japan is unable to furnish replacements.

CPM has been able to locate a supplier of sailcloth that is identical to that from which AG cut its CR 914 sails, and arrangements have been made with Scott Rowland and his Windjammin Sails company, which has made model and full-scale sails for a number of classes for more than ten years, to produce sail kits that will be essentially identical to the sails previously supplied by AG.

CR 914 kits and sails are again available from CPM. 

*Chesapeake  
Performance  
Models*

www.rcyachts.com

**Dave Ramos**

227 Main Street  
Stevensville, MD 21666  
(410) 604-3907  
(410) 604-3908 fax



# Who's Gotta Regatta

Here are the 12 or 13 2008 regattas that have been reported to the class office. When an event has already been held it's name appears in gray and an URL, if any, indicates where to go to find a report about it, usually with complete re-

sults and photos. For all other events, the name and email address of the contact person are listed, and an URL, if any, indicates where you can go to find hype about that regatta, the Notice of Race and entry form if they have been

posted yet, and further information such as lodging, driving directions, and special instructions such as those for the Cow Pond Regatta: "Consider bringing a change of clothes. All children will get dirty, or fall in the pond. Or both."

## **Clovelly's 8th Annual Cow Pond Regatta**

April 5

Clovelly Farm  
Chestertown, MD

Amy Hitt - [ahitt@crosbymarketing.com](mailto:ahitt@crosbymarketing.com)

[www.cr914class.org/regatta\\_cowpond2008.php](http://www.cr914class.org/regatta_cowpond2008.php)

## **New England Spring Invitational**

April 12-13

Plattwood Park  
Deep River, CT

Brian Jobson - [bjobson@dpmyc.com](mailto:bjobson@dpmyc.com)

[www.cr914class.org/regatta\\_2008\\_nesr.php](http://www.cr914class.org/regatta_2008_nesr.php)

## **Corte Madera Regatta**

April 19

Mission Bay Model Yacht Basin  
San Diego, CA

Dick Huntington - [dickhuntington@cox.net](mailto:dickhuntington@cox.net)

## **The Yacht Club's Spring Regatta**

June 1

Summerwood Lake  
Houston, TX

Walt Douglas - [waltbdouglas@earthlink.net](mailto:waltbdouglas@earthlink.net)

## **Cleveland Race Week Regatta**

June 23

Edgewater Yacht Club  
Cleveland, OH

Bob Rosenbaum - [bob@therosenbaum.net](mailto:bob@therosenbaum.net)

## **AMYA Region 1 Championship**

June 29

Redd's Pond  
Marblehead, MA

Chuck Winder - [chuckw88@msn.com](mailto:chuckw88@msn.com)

[www.cr914class.org/regatta\\_2008\\_region1.php](http://www.cr914class.org/regatta_2008_region1.php)

## **?? Washington College Spring Regatta**

date t.b.a.

Chestertown, MD

Geoff Becker - [gbecker2@washcoll.edu](mailto:gbecker2@washcoll.edu)

## **Fourth of July Regatta**

July 4

San Diego Yacht Club  
San Diego, CA

Dick Huntington - [dickhuntington@cox.net](mailto:dickhuntington@cox.net)

## **Fourth of July Regatta**

July 6

Blue Crab MYC/Germantown  
Recreational Park Soccerplex  
Germantown, MD

Nils van den Beemt - [nvdb@comcast.net](mailto:nvdb@comcast.net)

## **Region 6 Championship**

August 16-17

Mission Bay Model Yacht Basin  
San Diego, CA

Dick Huntington - [dickhuntington@cox.net](mailto:dickhuntington@cox.net)

## **CR 914 National Championship**

September 26-28

Redd's Pond  
Marblehead, MA

Chuck Winder - [chuckw88@msn.com](mailto:chuckw88@msn.com)

[www.cr914class.org/regatta\\_2008\\_nationals.php](http://www.cr914class.org/regatta_2008_nationals.php)

## **The Yacht Club's Fall Regatta**

November 2

Summerwood Lake  
Houston, TX

Walt Douglas - [waltbdouglas@earthlink.net](mailto:waltbdouglas@earthlink.net)

## **CBMRA Invitational**

date t.b.a.

Sandy Point State Park  
Annapolis, MD

Ernest Freeland - [efreeland6@comcast.net](mailto:efreeland6@comcast.net)



## To Wax, or Not to Wax: An Engineering Perspective

by Christopher VanEpps

Editor's note: This is the second installment of a long article that I found on the Internet. It was published October 1998 in *On the Wire* and is reprinted, in abridged form, with the permission of the author. Issue 58's installment concluded with a discussion of why dimples make a golf ball travel farther, a fact that some have used to argue by analogy that roughening the surface of a hull with sandpaper reduces drag as well.

**B**ut you're not sailing a spinning golf ball through air at 120 mph. You're dragging a cigar shaped thing through water at a much lower speed. If you guess that this makes a difference in the total drag picture, give yourself a cigar. You'd need some pretty big dimples. At the speeds your hull is traveling the 'roughness' caused by sandpaper doesn't yield squat for lift and even if it did it'd be in the vertical plane and wouldn't help forward velocity unless it caused a planing situation, which it won't. (And no, this lift would not help you to windward!). All you get is the parasitic and induced drag components. The pressure drag component of the equation is small enough compared to the other components as to be ignored.

In an ideal world, airplane wings would be completely smooth. However, engineers put turbulators, vortex generators and other devices on them to 'roughen' the surface of the wing. Why? Not to reduce drag and make them faster. It's to increase lift, or improve low-speed stall characteristics and/or to try to reattach turbulent flow before it completely detaches. Any roughening of the surface increases parasitic drag and decreases top speed potential in a

foil type surface. The engineers just put up with this 'cause they have to. Keep in mind all of this theory is in reference to a particular body's Reynolds Number. A sailboat will be operating at a very low average Reynolds Number, so a lot of this talk is rendered moot. Just because one has a low Re doesn't mean one experiences laminar flow. Thus the importance of determining the critical Re, which is no small feat. And all talk of fluid dynamics pivots on the viscosity of the fluid involved, but water and air aren't even close in viscosity. The bottom line is whatever one has to do to improve the flight of spinning golf ball really has no bearing on a hull being dragged through the water by its sails.



Some point to the fact that water beads on a waxed surface—while exposed to the air—and (correctly) say that this is caused by surface tension. They are correct, but they drown in the shallow end of logic pool by thinking (incorrectly) that this 'tension' must 'pull' on the submerged hull, slowing the boat down. I must pause to laugh here. If this were actually true, wouldn't it hold that if you gave that same tenacious water thousands of little scratches to hold onto, it could pull that much harder? Motor oil will bead on a waxed surface and I'll bet that's pretty slippery too. Water has a surface tension property, but it's dependent on the interface. Surface tension may also be broken, as can be demonstrated by making the meniscus disappear from a thin column of water in a graduated cylinder by add-

ing a drop of liquid detergent. Hmmm, did I just say that surface tension can be broken 'chemically.' Think about that for a while. Luckily for sailors, what the air/water interface is doing has nothing to do with how the submerged portion reacts at the hull/water interface. Not to mention that static and dynamic states have markedly different characteristics and we only care about dynamic flow. Same equations, but drastically different values. Water and air boundaries are completely different. Different densities, different viscosities, just different. The fact that water is beading in the air has no relevance to the discussion. Why do you think your keel and rudder, which are used to balance forces, are so much smaller than your sails? Different interface and mediums.

A difference in drag along a boat hull, between a wet sanded hull and a waxed hull, has never been experimentally confirmed, to my knowledge.

That's how minute the difference is. But until someone drags a sanded hull through a tank of water, with transducers attached to measure drag, then drags the same hull after waxing and detects a significant drag increase, I must insist that the lower drag will be attained with the waxed (smooth) hull. Frank Bethwaite, on page 263 of his brilliant book, *High Performance Sailing*, states "...at practical yacht or dinghy speeds, only the bow area of the hull can hope to run with a laminar boundary layer. Under this area the surface should certainly be highly polished. But beyond this zone the flow will become turbulent (remember the Reynolds Number equation and the relation to distance behind the leading edge/bow) and under turbulent flow a highly polished surface will not be any faster than some

rougher surface, provided always that the roughness is less than some small fraction of the boundary layer thickness." Central to this is that roughness. I believe the boundary layer thickness to be extremely thin at the hull water interface, and while Mr. Bethwaite does not concretely recommend waxing/polishing the entire hull, he doesn't preclude its success, and he distinctly promotes leading edge polishing. The key is to have your hull as aerodynamically smooth as possible to keep the flow attached for as long as possible, keeping the transition from laminar to turbulent flow as far downstream from the leading edge as possible.

### Conclusions?

Most aerodynamicists will admit it's still as much of an art as a science, and the more we learn and understand, the less we realize we truly understand and the more we have to learn. The bottom

line is that the differences are microscopic anyway.

An individual who has sailed with Dennis Conner (of America's Cup fame) related a quote to me in which Mr. Conner was asked why he wet-sanded his Cup boats. He replied that he had absolutely no idea, but he was sure the other teams were and by God he was going to as well, if for no other reason than to level the playing field. It is also postulated that his teams wet-sanded to promote team unity and to assure as fair as possible a hull form, more than a scientifically-based attempt to gain speed. And when Dennis defended the Cup in the catamaran *Stars & Stripes* he not only wet-sanded, but used a controversial coating that I believe was called "Shark Skin." It's amazing to watch how in their desperation to go 0.001 knot faster, even the best sailors can get sucked into trying every bottle of juice from every snake

oil salesman on the globe. The fact is, any possible difference that "Shark Skin" could have made, as compared to wet-sanding, or wax, or silicone polish, is so miniscule that it's effect can't be distinguished from the noise in the data.

So go ahead and wax your hull. It will protect it from UV damage and keep it looking shiny. And, thanks to Billy Crystal, we all know it's better to look good than to feel good. If someone beat you and he wet-sanded instead of waxing/polishing, he was a better sailor, not a better boat prepper. Even if it was Dennis Connor. Even the best can be scientifically misled.

Cheers,

Christopher H. VanEpps  
Aeronautical Systems Engineering  
Lockheed Martin  
[chris.vanepps@lmco.com](mailto:chris.vanepps@lmco.com) 



## AMYA Update

by Dick Martin



**THE CONTEST OVER THE ELECTION OF AMYA OFFICERS** this fall continues to heat up. Every CR 914 owner who at the time of the election will be a paid-up member of AMYA is urged to become informed about the issues and problems involved, and *vote*. And 914ers who have not joined AMYA or have let their memberships lapse are urged to join/rejoin *now*, in time to participate in this election that has the potential to rejuvenate and reform our national governing organization.

Incidentally, when the painstaking line-by-line comparison described in "Who's Counting?..." in the last issue of the *CRonicle* was repeated in June, the names of 28 'new' 914ers appeared, who had not been listed in AMYA's membership records in March. Recalling quite vividly the problems I discovered each time I had tried to reconcile my records with those of the AMYA membership secretary over the years since I became class secretary, I hesitate to believe that many of these 28 actually did just recently join or rejoin AMYA, but if you are one who did so in response to my "Three good reasons to join AMYA *now*" editorial in that same issue, *thank you!* However, 16 names that did appear in AMYA's records in March were missing in June. Indeed, given some 'reshuffling' of numbers that resulted from discovering several previously unrecognized multiple CR 914s ownerships among AMYA members, the net totals for our class that Carole and

I submitted for the fall issue of *Model Yachting* — which will reflect our June count — will show a net decrease of two "current AMYA members and family memberships who own one or more registered CR 914s," to a total of 200.

I encourage everyone who has received the summer issue (#152) of *Model Yachting* — which was mailed in May but may not have been received yet, since the AMYA membership application form published in *Model Yachting* claims that unless you spend an extra \$10 for first class postage, delivery of your copies will take an astonishing "4 to 8 weeks" — to steel yourself and take the time to read *carefully* all the material in the "Nominations & Motions for 2008" section that appears on pp. 59-62, as well as the report by the AMYA treasurer entitled "2007 Deficit" on page 58. Read the words that each of the contributors wrote, but try to read between many of the lines as well.

Most of the remainder of this article/editorial, which continues on pp. 14-15, consists of two messages that have been distributed by email during June, written by the 'reform' candidates for the offices of President and Treasurer. They are reprinted, with the permission of their authors, to further help you understand the seriousness of issues that need to be addressed, and how important it is that a wide cross-section of RC sailors votes in this election, not just the 'old boy' network that currently controls our parent organization.

**INTRODUCTION** (posted on the Campaign Central page of the EC-12 website ([www.ec12.org/Campaign/2009\\_Team.htm](http://www.ec12.org/Campaign/2009_Team.htm)): "Rick West sent out an email in response to negative remarks and disinformation circulating on the Internet about the candidates supported here. This message also addresses some of the key points of the plan to upgrade the AMYA, to clarify the hearsay that is also circulating. This message was sent to about 70 people on 2 June. In addition the team position regarding the upgrade is linked about with more detailed wording."

*Sent:* Monday, June 02, 2008 12:15 PM  
*Subject:* AMYA Team Candidate Message  
*To:* Members of the AMYA Board of Directors, Class Secretaries, the EC12 Class CAC, event organizers and regional supporters of this team.

Gentlemen,

The hallowed halls of the AMYA are for the invited and those of the same mind. Our proposed officer's slate is not part of this group and each of us has been touched along the way through our suggestions and questions about process and progress at the AMYA. Much of this has not been kind.

In February of this year, I made a polite phone call to President Pete Maxson to inform him of a team of nominees that would be filing for all positions. Since then, we have learned how really apart we are. The negativity has been astounding, surprising and quite personal. The time has come to say something of why we are here and what we plan to do if elected this fall. The hearsay and assumptions flowing through the ether and Ethernet is way off the mark. To say the least, the establishment at AMYA is very upset.

I told the President the action was born from impatience by members frustrated in the lack of progress in upgrading the Association. This is why we are here and what we will do if elected.

The areas of concern include the use of

technology toward communication, electronic media within the Association and to its members outside of *Model Yachting*. The base is to upgrade the website to be attractive to the public with a portal behind which the managers and the members could interact in the private affairs of the Association. It is the belief of this team that the membership should be aware of processes and intents of the officers and the results of decisions and the votes thereof in real time. Whereas, *Model Yachting* is the business connection to the members, it should not prevent notice electronically, in advance of proper posting. Right now these actions are closed until final and published in the magazine. Today, the BOD does not interact with the constituency it supposedly represents.

These points are the basis and beliefs of our group:

- The Association should move toward a "small business" attitude while acting with fiduciary process and respect to parliamentary law. The business end should plan and execute budgets and report both.
- Monies should be in the hand of the officers and controlled. Costs should be reviewed; other sources of income explored and report both. The Association is to function within its income and add or remove services where or when appropriate.
- The Association should be marketed on the Internet and through its members. The Association should have a business office (in essence) and be reachable within a reasonable time frame by the public and the members. This could become a customer support team in addition to current duties for the business.
- Hearsay reports that this team has the Membership Secretary targeted for replacement. This is totally false. The office should be enhanced in function and workload management. Further, hearsay says we will take

*Model Yachting* electronically to the website. This too is totally false and we have been on record for months that it remains in print.

- Under the base of the website the Class Secretaries should be in interaction with their peers and their members. Means can be provided that would allow the sharing of information and ideas toward growth, management and involved relations. The Association should provide assisted space on the website to market their class to the public and members of other classes. This group is the heart of the organization and I think far underused.
- Within 30 days the new web portal will be up, communications with the membership will begin and a team will start working with the Class Secretaries to establish their classes in a more attractive way.

Since the outset of this effort and in our talks within the team, we will move through this process talking about what we plan to do. It is not about people but the processes that are needed. This is where the message will stay. We think the membership that will decide the election should hear the position of the candidates and the manner they conduct themselves in doing so. Since March we have had a position statement ([www.ec12.org/Campaign/2009\\_Team.htm](http://www.ec12.org/Campaign/2009_Team.htm)) on [www.ec12.org](http://www.ec12.org) of where we will go and why. This is more detailed than room permitted here.

It is important to us that you understand where we are asking to go. It will be a job of considerable effort and fewer days at the lake. If given the chance we, and you, will get it done. Your support and that of the members will help move the AMYA into the 21st century.

Sincerely,

Rick West  
EC12 Class  
Pacifica by the Sea, California

**THE FOLLOWING IS AN EMAIL** that was received on June 12 from the reform candidate for Treasurer, Phil Geren, in response to my request to be allowed to publish a similar message that I had received from him a week earlier.

Dear Dick,

I am delighted to have this opportunity to address the distinguished readership of the *CRonicle*! The upcoming AMYA election is an important one, and there are issues which everyone should be aware of. I am running for Treasurer, and there is a lot of disinformation out there, being circulated by members of the present AMYA administration, concerning my performance as Treasurer in 2005 and 2006. This letter shall contain no negative public AMYA election campaigning against the incumbent candidates. However, it will provide the truth in rebuttal of the false statements about me personally, which are being made by the incumbents and spokes-

men for the incumbents (Gene Faust, Dick Rutledge, Chuck Buzek, Rod Carr)

Firstly, let me thank Gene Faust for his service to AMYA as Treasurer for Fiscal Years 2007 and 2008 and wish him well. Gene has worked hard, and he was compelled to "explain" the AMYA's deficit in Fiscal Year 2007 in an article on page 58 of Issue 152 (summer '08) of *Model Yachting*. Gene's explanation points the finger of blame for 2007 deficits at me, although there is no relationship. Treasurers do not create deficits. They are responsible for: collection and disbursement of Association funds; preparation of annual financial reports; obtaining approvals needed for non-budgeted expenditures in excess of \$100.00; and, they must keep all Association funds in bank accounts in the name of the Association, to be withdrawn only by the President and the Treasurer.

Secondly, there is a strong possibility that the false accusations Gene made in his explanation, blaming me for deficits and IRS penalties which

took place during his tenure as Treasurer, might be believed unless I answer them. For this reason I would like to make sure that the CR Membership is clear on the record:

- The operating losses ("deficits") incurred by the AMYA in Fiscal Years 2005, 2006, and 2007 were \$26,217, \$13,374, and \$27,542, respectively. In looking at operating results one must not mix calendar and fiscal years, as Gene has done in insinuating that I am responsible for deficits and penalties occurring during his tenure. Deficits in fiscal years after 2006 are not related in any way to my tenure as Treasurer.
- Concerning the filing of Federal Tax Returns, when I was honored with the duties of Treasurer, on 1/1/05, I learned that the office of Treasurer had been vacant for many months and that the Association had not filed a Federal Tax Return for at least 5 years. In spite of the fact that AMYA is exempt

from income tax liability, tax returns must be timely filed to maintain that exemption and to avoid significant monetary penalties for late filing. These are serious matters. Against the wishes of the AMYA's 2005 administration, I insisted that back tax returns be filed. Constructing accurate financial statements for delinquent years was not easy; however I was able to provide Jeff Moore, our accountant, with the data he needed to file delinquent returns. Working further with Jeff, we were successful in convincing the IRS not to assess a penalty at that time (no intent to defraud; no taxes owed; failure to file being due to ignorance of the requirement.) So, we were up to date and on good terms with the IRS for fiscal years through 2005.

The tax return filing date for AMYA, an organization under Internal Revenue Code Section 501(c)(3), is 15 February of the year following the end of the fiscal year. My duty as Treasurer was to make sure that financial statements for the fiscal year ending 30 September 2006 were provided to Jeff Moore by the end of my tenure, so that Jeff could timely file the 2006 tax return February 15th, 2007. As soon as the fiscal year ending in September of 2006 was over, I worked hard to collect the data and develop the financial reports. I provided those documents to Jeff timely on 28 November 2006. Also, in turning things over to Gene Faust, I advised him about the odd filing date and warned him to follow up with the accountant early in his tenure as 2007

Treasurer, to ensure that the 2006 return was filed on time. Gene now says that AMYA has paid a penalty for late filing. If that is so, it is for his failure to follow up. This is something for which I bear no responsibility.

You may be interested to know that upon beginning my work as Treasurer in 2005, I found the financial side of the AMYA to be a huge mess: the previous Treasurer had abandoned his post almost a year prior to my coming in; Federal Tax Returns were seriously in arrears; money was draining out of a large AMYA bank account which was beyond the control of the Treasurer; the administration was running annual deficits of \$20,000 or more, and bankruptcy was looming. Would *Model Yachting* be able to continue in production if AMYA's money ran out? No, absolutely not.

I fought the administration hard, demanded that all AMYA moneys be placed under the control of the Treasurer, demanded that expenditures be brought into line with revenues, documented the fiscal mismanagement of the out-of-control bank account, and demanded corrective action in a private white paper to the Board of Directors. Needless to say, I made powerful enemies. I was eliminated from running for a second term on a technicality (I failed to submit my name as a candidate before a deadline found in the By-laws of the Association.)

Thirdly, there are important financial issues facing the AMYA. Deficit operations, which have become the hallmark of recent AMYA administrations, threaten the future viability of the AMYA and its ability to continue publishing *Model Yachting*, a glorious and historic publication which we must perpetuate. Please let me

know if more information on this serious threat would be of interest.

Treasurer is a thankless job, however it is a position in which the right person, supported by the right Executive Board (President & Vice President) can balance the budget and keep *Model Yachting* coming. I am running again for Treasurer to complete the work I started, this time with new candidates for President and Vice President who also demand fiscal responsibility, improved services to the membership, and growth of the AMYA and Model Yachting. Rick West, new candidate for President, and Class Secretary of one of the fastest growing classes in the AMYA, has proven that he knows how to serve and grow membership. He brings those and many other important skills with his candidacy. Ken Shaw, candidate for Vice President, is equally as dedicated as Rick and I are to these goals

There are many other exciting facets to the platform of the new candidates, such as: opening new means of real-time communications among the Board, the Class Secretaries, and the Membership; improving the website's usefulness; keeping the Membership informed of actions by the Board; providing better support to Class Secretaries; and, many others. There is a brief explanation of the platform of the new candidates on page 60 of issue 152 of *Model Yachting*, and as the end-of-year election approaches more information will be available.

Please vote for Rick West for President, for Ken Shaw for Vice President, and for me for Treasurer. You will be glad you did! That's a promise.

Kindest regards,

Phil Geren

So there you have the latest update about the AMYA election. Please make your own judgments about the issues and the candidates involved, and *vote*. You must be a paid-up member of AMYA in order to vote. If you aren't, fill out the AMYA membership form on page 17 of this *CRonicle* and mail it to the address shown there, or use the AMYA website to join up *now*. If you think you are a current member, check your AMYA card for its expiration date (or contact me at [atcr914m@gmail.com](mailto:atcr914m@gmail.com) if you can't find your card and I will check for you). And if you find that your membership has expired, rejoin right away. The election is only a few months away.

Oh, by the way, you'll get a 'bonus' if you join AMYA today: the next issue of *Model Yachting*, in which the election ballot will appear, will feature the CR 914 class! 📄

## Rewards

If you plowed your way through all this political stuff, you deserve a big pat on the back, and a little fun. How about another fun photo, and one of the all-time best Winder One-ders?

If a man talks in the woods, and no woman hears him, is he still wrong?

CR 914 NEWS Issue 36, 2003



photo credit: Dick Martin (October, 2002)

**Wakes** – A puff penetrated the late afternoon thermal inversion without rippling the surface of the water moments before the M3SC fleet, trying to complete its last race of the day, began the leeward offset leg, generating interesting patterns in the water and a challenge for Todd Trabue (applying body English in the right foreground), whose *Slim Margin* (886) is about to round the leeward mark, with his father's *Diversion* (729) in hot pursuit.

## New Boats and Owners

Sail No.	Boat name	Owner	City	State
637	<i>Sound Desire II</i>	Michael A. Pace	Old Saybrook	CT
1328	<i>Aqua Quorum</i>	Tom Spencer	Templeton	CA
1430		Mark Fleckenstein	Lafayette	NY
1481	<i>C. J.</i>	William F. Bowie	Gloucester Point	VA
1482	<i>Special K</i>	Robert Kowalski	Spotswood	NJ
1483	<i>Cynara</i>	Douglas Trees	Hamilton	MA
1484	<i>Hey Hon!</i>	Richard C. Crater	Chestertown	MD
1485		Robert E. Ritchie	Rock Hall	MD
1486	<i>Fireball</i>	Bob Armbruster	Glencoe	IL
1487		Randy Poe	San Diego	CA
1488		William Uhl	North Sutton	NH
1489	<i>ST Classic</i>	Sam Santora	Garfield Heights	OH
1490		Richard Castner	Dedham	MA
1491	<i>Hazel</i>	Donna Adams	Somerville	MA
1492		Rod Carr	Redmond	WA
1493		Carl Buxbaum	Marblehead	MA
1494	<i>Blackjack</i>	Mike Gregg	Chester	CT



*Swift*, Christian Flebbe's new (July, 2007) CR 914, sailing in the canal behind their home in Miramar, Florida. Christian is looking for other 914ers in South Florida who want to race, and he hopes to get to a regatta up north this year. How about the Nationals in Marblehead in September, Christian?

## The CRonicle Honor Role

The following Heros of the CR 914 Class contributed ideas, articles, reports, photos and/or letters for this issue.

Phil Adams ..... Cambria, CA  
 Dan Butterfield ..... Nellysford, VA  
 Tom Donlan ..... Falls Church, VA  
 Phil Geren ..... Houston, TX  
 Dick Huntington ..... San Diego, CA  
 Elaine Huntington ..... San Diego, CA  
 Brian Jobson ..... Wolcott, CT  
 Dick Martin ..... Columbia, MO  
 Rick Martin ..... Seattle, WA  
 Christopher VanEpps ..... Vestal, NY  
 Rick West..... Pacifica by the Sea, CA  
 Chuck Winder ..... Marblehead, MA

## Deadlines for future CRonicles

issue	submission deadline	publication date
60 - Autumn, 2008	<b>September 22</b>	October 15
61 - Winter, 2009	<b>December 15</b>	January 2
62 - Spring, 2009	<b>March 15</b>	April 1
63 - Summer, 2009	<b>June 15</b>	July 1

But submissions are **welcome any time**. There's no law that says that you must wait until a deadline!

## When does my subscription expire?

Look at the mailing label on the cover of this issue. Immediately after your name you will see a number. That will be the last issue in your current subscription. If it says 62, for example, you're good through March 2009. If it says 60 or 61, however, it would be a good idea to renew right now, before you forget. And you are welcome to extend your subscription any time. Your new subscription will simply be added to the number of issues remaining in your current one.

Have you ever wondered whether the *CRonicle* was overdue, only to go back and find that the last issue you received (quite some time ago) bore a warning that it would be your last issue unless you renewed your subscription? There will be bright fluorescent labels on the address page and at the top of the first page of your last issue the next time your subscription is due to run out. You need to remember to renew *the very moment you see those colored labels!*

If you don't, you will receive a reminder (but no *CRonicle*) when the next issue is published. But if you don't remember to renew then, you won't receive another reminder.

## CR 914 Class website PASSWORD

This quarter's password is:

***fireCRacker***

(remember: all passwords are **case sensitive**)

This password will expire on October 5 and will be replaced by a new password that you will find in this location in Issue 60 of the *CRonicle*.

# RENEW YOUR SUBSCRIPTION to CR 914 COMMUNICATIONS

*It's quick and easy to do:*

1. Check your name and address on the mailing label on the reverse side of this form.
2. If the information there is correct, all you need to fill in below is your current email address (they change often) and anything else that is new or has changed since the last time you subscribed.
3. Write a check for \$10 (18 months, 6 issues of the *CRonicle*) or \$20 (13 issues) payable to R. H. Martin/AMYA.
4. Cut out this form. (If you prefer to make a copy of it be sure to *copy both sides!*)
5. Stick this form and your check in an envelope and mail to the address shown at the bottom of this form.

Name \_\_\_\_\_ Sail number(s) \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Email \_\_\_\_\_ Evening phone number ( \_\_\_\_\_ ) \_\_\_\_\_ - \_\_\_\_\_

AMYA Number (if you are a member of the American Model Yachting Association) \_\_\_\_\_

Sailing club affiliation (if any) \_\_\_\_\_ Boat name: \_\_\_\_\_

**Want to register another CR 914?**  
Download a registration form at [www.cr914class.org/pdfs/registration\\_form.pdf](http://www.cr914class.org/pdfs/registration_form.pdf)

**Make check payable to:**  
R H Martin/AMYA

**Mail check with this form to:**  
CR 914 Class Secretary  
1206 Castle Bay Place  
Columbia, MO 65203

**Questions?**  
Contact Dick Martin  
cr914m@gmail.com  
(573) 256-7213

cut here ✂

## AMERICAN MODEL YACHTING ASSOCIATION

### Application for membership

Clipped from CR 914 CRonicle Issue 59, Summer, 2008

the AMYA Membership Form that was published on page 66 of *Model Yachting*, Issue 152, Summer, 2008.)

**This application is for (please circle one):**    **New Membership**    **Renewal/Former**

Check one: **Adult: \$25.00** \_\_, **Family: \$27.50** \_\_, **Junior: \$15** \_\_

Add \$10 for postage in Canada and \$15 for other countries. Add \$10 for first class mail delivery in U.S.

Enclose check or money order payable to AMYA, or check one: MC\_\_ VISA\_\_ Discover\_\_ AmEx\_\_

card number \_\_\_\_\_ expiration date \_\_\_\_\_ signature \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Country \_\_\_\_\_

Telephone \_\_\_\_\_ Email \_\_\_\_\_

Current AMYA membership number \_\_\_\_\_ AMYA Club number \_\_\_\_\_ Club Name \_\_\_\_\_

**List all model sailboats you own:**

class	sail number
<b>CR 914</b>	_____
_____	_____
_____	_____



*Send completed form to*  
AMYA Membership Secretary  
Michelle Dannenhoffer  
P.O. Box 360374  
Melbourne, FL 32936  
888-237-9524 (toll free)  
Membership@ModelYacht.org



# CR 914 Class

1206 Castle Bay Place  
Columbia, MO 65203

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the **CRonicle**

Issue 59  
The Great Battery Debate

Summer, 2008

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