

the national newsletter of the CR 914 Class

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❖ CR 914 NEWS ❖

issue 43

2004 Nationals "Extra"

2004 CR National Championships

Thanks to Ernest Freeland, Dave Ramos, and all the members of the Chesapeake Bay Model Racing Association, the 2004 Nationals are a GO after all! On the same weekend originally scheduled for the event by the Norfolk fleet. You will find the official Notice of Race and an Entry Form on the inside pages of this issue; here is a letter from Ernest inviting you to attend:

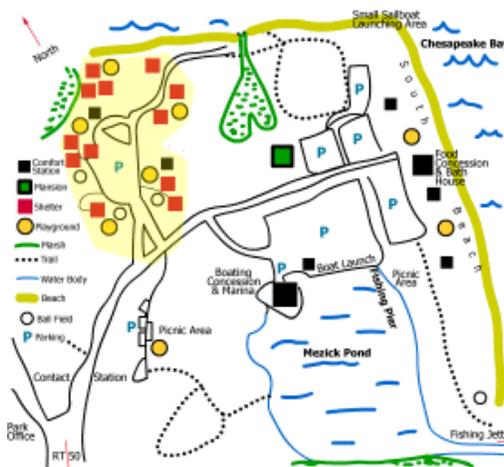
An Invitation from CBMRA

On behalf of the club members of Chesapeake Bay Model Racing Association I would like to invite you to the 2004 National Championship Regatta for the CR-914 class. CBMRA will be hosting the regatta on November 12-14 at Sandy Point State Park in Annapolis Maryland. Sandy Point is located on the Chesapeake Bay at the base of the Chesapeake Bay Bridge on the Western shore. To learn more about it visit the Sandy Point State Park website: www.dnr.state.md.us/publiclands/southern/sandypoint.html.

We will kick off the Nationals with a cookout, some boat measurement and check-in at Dave Ramos's shop due east of Sandy Point State Park on the Western side of the Bay Bridge. Racing will commence at 1030 hours on Saturday in Mezick Pond at the park. The number of entries we receive will determine the regatta format. We are going to try to sail under the promotion-relegation format for the entire weekend.

Bring your entire family because there are plenty of things for the family to do at Sandy Point State Park, downtown Annapolis is a fifteen-minute drive, and the Annapolis Mall is about a twenty-minute drive. There are three hotels within minutes of the Park and multiple hotels near the Annapolis Mall.

On Saturday night we will host a dinner at a soon-to-be-determined location. We are rapidly finalizing details on a daily basis. All of the latest information can be found on the 2004 Nationals link at www.rcyachts.com/Nats/2004/NATS2004.htm.



View from the Mezick Pond exit into the Bay

“While I know there will be some great sailing and competition at the regatta, the best part of the regatta will be social aspect of it.”

CR 914 Class

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



CR 914 Class Secretary

Dick Martin Columbia, MO

Advisory Committee

Chuck Winder Marblehead, MA

Dave Ramos Arnold, MD

Buttons Padin New Rochelle, NY

Ernest Freeland Annapolis, MD

Howie McMichael Larchmont, NY

Pablo Godel West Chester, OH

Chief Measurer

Chuck Winder Marblehead, MA

The CR 914 NEWS

is published quarterly

Send comments, articles,
photos and other material

to

the editor
CR 914 NEWS
1206 Castle Bay Place
Columbia, MO 65203
email: rhm@ussailing.net

While I know there will be some great sailing and competition at the regatta, the best part of the regatta will be social aspect of it. No matter what your sailing level is, please come join us and I assure you that you will have a great time!

Due to our late start we can use all the volunteers we can get. If you are bringing a guest who would like to help out, please contact Ernest Freeland at cbmra@yahoo.com or Dave Ramos at daramos@starpower.net. 

Why attend the nationals?

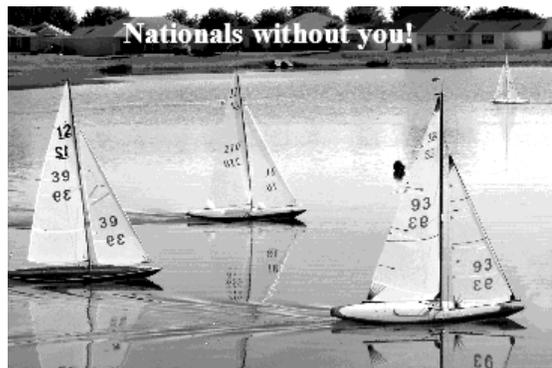
I'm not my club champion. Should I go to this year's national championship?

by Scott Rowland

(reprinted from the 2004 EC-12 Nationals website: (www.beanbag.com/EC12/article.htm))

Recently, one of our club's better B fleet sailors asked if it was worth his time to go to this year's Nationals. They then expressed concerns that they were not going to be in contention to win and thus maybe it would be better if they just didn't get in the way.

Not go... That's Crazy! Anyone and everyone who owns a model yacht and who enjoys the camaraderie of others who share this same interest should by all means make it to their class Nationals. A yachting Nationals is not an event designed to determine who the country's best sailor is. That's the Olympics. In fact, except for the guy who wins and maybe the person who took second, no one really cares who wins, just that everyone had fun. Way back when



people started racing model boats, somewhere someone said, "Here we have other clubs all over the country doing exactly what we are doing here. Wouldn't it be neat if at least once a year we could get all these other sailors together for one big event to share their ideas, stories, and insight in the sport." And thus, the idea of holding this one big event was born — the Nationals.

It really doesn't matter if one is the fastest, or even the slowest sailor in their group... their attendance at a Nationals will not only help them improve their skills, but it will help the future of the class they are competing in and the longevity of the sport. In addition to just getting on the water with a whole new crowd, ideas are shared, boat tips and tricks are exchanged, stories are told, and one makes new friends with people from all over who have a similar interest. In past years attending National events, I had several offers to come stay and sail with other distant sailors next time I found myself in their area.



Another advantage of attending a Nationals is that one tends to gain about a year's worth of sailing experience in just one weekend. Usually the big events have a lot more boats, and you sail a lot more races. Thus, in just a very short time

you get a lot more sailing with a lot more boats which you start to adapt to by the end of the event. Then, when you do go home to the fewer boats and races, things suddenly get easier.

The more people who attend the Nationals, the better the event. The host club has more funds to do a better regatta and outside supporters will do more with the larger events. The bigger events will usually lure all the sail mak-

ers, boat builders, fitting suppliers, and other interested parties. This is the one opportunity to see their latest designs and to get their help first hand. Most of these people are more than eager to answer all your questions and to help you in any way possible. They usually donate or give away a ton of cool stuff too.

Finally, if the rest has not convinced you to pack up the boat and head to this year's Nationals, then think of this. The

lucky sailor who wins the Nationals is said to be the current year's best sailor.

Well, don't you think they should actually have to beat you before you just let them claim the fame? So, don't not come because you are afraid you are in the way. Make them earn it. And who knows, on any given Sunday anyone can win.... And you may surprise yourself. 🏆

Plans for the class newsletter

This "extra edition," which resulted from the need to spread the word about the 2004 Nationals as widely and as quickly as possible, will give you an idea of the planned layout and format of future regular issues of the newsletter.

Schedule

Issue 44 (deadline for submissions: October 15, scheduled for publication October 30) will initiate a quarterly format (winter, spring, summer, autumn). Each issue will aim for 12 to 14 pages—but the exact size will depend on contributions from *you*. Your current subscription and future "one-year" renewals will continue to entitle you to six issues, i.e., a \$10 subscription will last for a year and a half.

Content

Issues will feature reports and pictures of regattas that have been held, news from the CR 914 fleets around the country and regular columns such as the "Nut on the End of the Joysticks" which makes its debut in this issue. Dave Ramos has agreed to contribute a regular "Builder's Column." And, as a primary condition in the terms under which your editor agreed to take on his new job, Chuck Winder has promised to write (among other items) a regular column that will be entitled "Report from the Chief Engineer," continuing a tradition of outstanding technical articles that played a leading role in making his *CR 914 NEWS* "the best class newsletter I've seen" (quote from former

AMYA webmaster David Goebel).

Chuck's, Dave's and my efforts won't be enough to maintain that proud tradition, however. *You* have got to pitch in, too. If you would like to contribute a regular column—incidentally, we particularly need a volunteer to write a Racing Rules column—that would be great, but an even greater need will be for volunteers to write *ad hoc* articles about whatever subjects turn you on (in-

Here is a challenge: during the coming four-issue year we should publish at least one article contributed by some member of each and every active CR 914 fleet.

cluding humorous tales about RC sailing/racing, not just serious stuff).

Here is a challenge: during the coming four-issue year we should publish at least one article contributed by some member of *each and every active CR 914 fleet*. A story about your featured regatta will be fine, but, particularly if your fleet hasn't yet graduated to the regatta-hosting mode, stories about your fleet racing, a successful campaign to add new members, and other activities will work too (try to make them of interest to a wide audience by including "secrets of our success" sorts of pearls).

Pictures

Pictures are every bit as important as written material. Several of the photos and other illustrations in this issue are *not* reflective of the quality that is desired for future issues. To meet a very tight publishing schedule (three days

from the receipt of the information about the Nationals until this issue went to press) the low resolution pictures were pulled from the Internet and still look pixellated despite having been reduced in size.

Multi-megapixel digital cameras are seen in the hands of sailors or family members at virtually every regatta these days. Only if each of you photographers will contribute a few high-resolution pictures of your fleet races and other interesting events—a prize-winning example of the "other" category is that great photo Ernest Freeland took of a Zodiac moored at a parking meter in flooded downtown Annapolis, which was printed in Issue 40 this year—will the visual interest of the newsletter be able to match the quality of the writing.

What is needed? High-resolution jpegs (preferably at least 2.2 megapixels, e.g., 1800x1200, so that they can span two columns, and 5+ megapixels for spanning a full page). Use the least compression available on your camera (often referred to in camera manuals as "SHQ"). Unless you are an experienced hand with high-end photo-processing software such as PhotoShop, please do not crop, straighten, or otherwise try to manipulate the image, and, if you do, remember that each time you work with a jpeg image and then save it, the jpeg compression process degrades it a little. Please trust the editor to level the horizon, crop, adjust brightness and contrast, etc. If you are in doubt about the



A well-nigh perfect example of the ideal photo for publication. This shot taken at the 2004 Larchmont Spring Invitational by Howie McMichael was published in Issue 41 this year. In addition to very high resolution (3,072x2048 jpeg, file-size 745K) it has an abundance of the elements of excellent composition: a big fleet, closely bunched, good wind and waves, and a very interesting background at the mouth of the LYC harbor on Long Island Sound. (Well, it would have been better if the editor's boat, #1122, hadn't been taking gas when Howie pressed the shutter!)

quality of your photos, send them in anyway. We can always use great action shots like the one shown above, no matter what resolution; we can often tweak them to improve their quality considerably. Glossy prints of any size are also fine; the editorial office has a high-resolution scanner. For potential full-page spreads, however, a 5x7 or 8x10 print is best.

Deadlines

Except for the next issue (44), articles and pictures will need to be submitted a month before each of the quarterly issues goes to press. Thus submission deadlines, which will be announced in each issue, will be December 15, March 15, June 15, and September 15 henceforth.

Time-sensitive material

A quarterly publication schedule will not be a good way to handle time-sensitive news such as regatta announcements—indeed, even the ambitious six issue/year schedule that Chuck Winder set for himself but found increasing difficulty maintaining, was far from ideal. Obviously, it's not feasible to publish an extra edition like this one

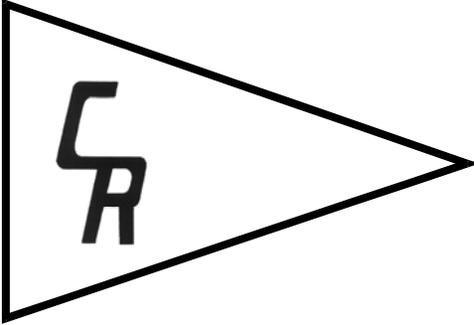
every time big, time-sensitive news breaks. Only a very limited number of CR 914 owners subscribe to the class List Server on which the preliminary news about the 2004 Nationals first was reported on September 18 (for that matter, slightly less than a quarter of the owners of registered CR 914s currently subscribe to this newsletter—including most, but not all, of the movers/shakers in the class and owners who enter regattas regularly).

It's the 21st century, already, and the potential solution to this communication problem obviously lies in the World Wide Web. Plans are afoot to develop a CR 914 class website (tentative URL: www.cr914class.org). This website, the official announcement of which should be ready for prime time in Issue 44, will serve as the primary source for time-sensitive news about the class, as well as a potentially important tool for recruiting new CR 914 owners. In order to fulfill the latter goal, the website will contain some of the material that will be published in this newsletter (to be posted there only after each issue has been mailed to subscribers) that will

make the class look attractive to potential recruits. So that it does not offer a disincentive for owners to subscribe to the newsletter, the website will contain many pages that will be accessible only to newsletter subscribers, such as the current issue of the newsletter (which, incidentally, on the website will boast full-color pictures, graphics and a variety of other eye candy). Stay tuned for further developments.

Is it time for a new name?

Since its true news-disseminating function will henceforth be served largely by the class website, will the time-honored name, *CR 914 NEWS* still be appropriate, or should we come up with a new one that may more accurately reflect its more magazine-like function? So far suggestions for a new name include *The CRonicle*, *The CRucible* and *The Yard Arm* (connoisseurs of the obscure will like that one: 914 millimeters equals one yard). Surely lots of you readers can come up with better suggestions than those. Email the editor with your thoughts about whether and what to rename the *NEWS*. ▣



**CR-914 National Championship
2004
November 12-14, 2004**

Notice of Regatta

Chesapeake Bay Model Racing Association is pleased to invite you to the 2004 National Championship Regatta for the CR-914 Class, to be hosted at Sandy Point State Park in Annapolis, MD. This event is intended for everyone's enjoyment, from the experienced to the novice. It is the hope of this club that all participants in this annual event will return each year to foster seamanship and sportsmanship.

1. Schedule

Friday, November 12, 2004

Cookout and beer – Early Check-In and Boat Inspection.
Chesapeake Performance Models,
227 Main Street, Stevensville, MD 21666

Saturday, November 13, 2004

0900 – 1000 Check-in/registration/inspections – Sandy Point State Park
1000 Competitors' meeting
1030 Harbor start
1600 (approximately) Completion of racing (No race will start after 1600)
1900 Dinner (details and location to be determined)

Sunday, November 14, 2004

0900 Competitors' meeting – Sandy Point State Park
0915 Harbor start
1400 Completion of racing (No racing will start after 1400)
1500 Awards ceremony

2. Eligibility

CR-914s registered with the class and AMYA are invited to participate by the Chesapeake Bay Model Racing Association in the CR-914 National Championship Regatta. All participants must be members of the CR-914 Class and AMYA. New owner boat registration is \$5. Combined registration and *CR 914 NEWS* subscription is \$13. AMYA membership is \$25. These payments may be made at Registration.

3. Pre-registration/Entry Fee

All participants must pre-register for this Regatta by completing the attached Entry Form and submitting it to the Committee for receipt no later than October 31, 2004. There will be a \$15 discount for early registration. Each entry shall be accompanied by an entry fee: \$60 if mailed by October 15, \$75 if mailed between October 15 and October 30. Any entry received after October 31 will be subject to a \$15.00 late fee (total entry fee for late registration: \$90).

All participants must submit the completed registration form and the accompanying payment to Chesapeake Bay Model Racing Association c/o Ernest Freeland, 908 Blue Ridge Drive, Annapolis, Maryland 21401. See Registration Form (attached) for details. Participants must send a check made out to Ernest Freeland or pay by a credit card number at www.rcyachts.com (follow the Nationals link). There is a surcharge for online payment to cover the processing fees.

4. On-site Check-in

Early check in will begin at 1730 hours Friday, November 12 at Chesapeake Performance Models, 227 Main Street, Stevensville, MD 21666. Check in will conclude at 2100 and resume at 0900 Saturday, November 13 at Sandy Point State Park.

5. Housing

There are also numerous hotels in the area where sailors can stay. See the Nationals website (<http://www.rcyachts.com/Nats/2004/ACCOMMODATIONS.htm>). There is a Comfort Inn, Quality Inn and Motel 8 within a few miles of the Park.

6. Social Activities

On Friday night during Check-In there will be a cookout at Chesapeake Performance Models. Lunch will be provided for all entrants. Lunches for both days may be purchased for \$16.00 for your guests. In order to ensure we have enough food for all participants and guests, you are asked to indicate the number in your party for each meal on the attached registration form.

Saturday's cocktail party and dinner will be hosted at a yet to be determined location.

7. Inclement Weather

It is the Committee's intention to race if it rains.

8. Driving Instructions to Sandy Point State Park

Sandy Point State Park is located on the West Side of the Chesapeake Bay Bridge on Route 50.

Park's Web Site: <http://www.dnr.state.md.us/publiclands/southern/sandypoint.html>

9. Questions

Call Ernest Freeland during the workday with any questions (410-451-6901) or e-mail him at cbmra@yahoo.com



ENTRY FORM

Chesapeake Bay Model Racing Association

CBMRA / CR 914 National Championship

November 12-14th, 2004

Competitor Information

Owner/Skipper: _____

Club Affiliation: _____

Class: CR-914

Sail Number: _____ Radio Channel: _____

Telephone Number: _____ Fax Number: _____

Address: _____

City, State, ZIP: _____

E-mail Address: _____

Cookout/Social Hour/Early Check-In Friday at Chesapeake Performance Models

Number attending: _____ (including yourself) (Cookout for guests Friday evening is \$10.00)

Number of guests for Lunches Saturday and Sunday: _____

(Lunch for guests Saturday and Sunday is \$16.00)

COMPETITORS AGREEMENT

I agree to abide by the regulations and Sailing Instructions for this event. In consideration of being permitted to enter this event, being knowledgeable of the risks of competitive sailing and knowing that it is my sole responsibility to decide whether to enter or continue any race, I voluntarily assume the risk of participation in this event and release the organizing authority and the people conducting the event from all liability in connection with any injury or damage that may occur.

SIGNATURE

Date _____

Competitor **AMYA MEMBERSHIP NUMBER** _____

ENTRY FEE

Entry Fee (Includes cookout and lunch for Saturday and Sunday): \$ _____

(If mailed by October 15 to qualify for \$15 discount = **\$60.00**; if mailed between
October 15 and October 30 = **\$75.00**; if received after October 31 = **\$90.00**)

Guest(s) for Friday cookout @ \$10 per guest \$ _____

Guest lunch(s) for Saturday and Sunday @ \$16.00 per guest \$ _____

Total amount enclosed \$ _____

(Please make checks payable to ERNEST FREELAND; note NATIONALS in Memo section.)

MAIL TO: Nationals c/o ERNEST FREELAND, 908 Blue Ridge Drive, Annapolis, MD 21401

Tuning the Nut on the End of the Joysticks

by Dick Martin

Tuning a CR 914 is over-rated. After you perform the simple steps outlined in the CR 914 Tuning Guide (reprinted on pp 11-12 of this issue) your boat will be essentially as fast as all the well-tuned boats in the class. That boring job should take only an hour, and when it's done you will only need to make occasional tweaks to adjust for different wind conditions.

On the other hand, practice at the helm, learning to read the wind on the water, and a host of other—*sailing-centered*—things like acquiring new racing knowledge and skills can occupy a lifetime of sailing, and their payoff in terms of boat speed and winning races vastly exceeds the benefits of obsessive-compulsive boat-tuning. Collectively these activities amount to tuning the *driver*; fortunately they are a lot more *fun* than the other kind of tuning.

Driver tuning will be the focus of this column, which is focused at an intermediate level sailor who may be just starting to compete. Each installment will discuss one “pearl” of sailboat racing wisdom, some dealing with boat speed, others with racing tactics, and yet others with the behavior of our fickle friend the wind.

Pearl 1. Keep ‘em movin’ down there...fast

The keels and rudders of CR 914s and all other high-performance racing sailboats, both full-scale and radio-controlled, are long and narrow. In aerodynamic jargon, they have a very “high aspect ratio.” Even though underwater fins don't have the asymmetric shape of a true wing, the leeway of the hull as it travels through the water makes the fins operate at a positive angle of attack, which generates lift to windward.

Although the ‘914's high-aspect-ratio fins are very good lifting surfaces, they are lousy “barn doors,” that is, they don't present much lateral surface area to the water to keep the boat from slipping sideways when it is not moving forward very fast. This contrasts strikingly with older sailboat designs, like

the old classic 12-meter for example.

So what does this have to do with making a CR 914 go fast? When you are sailing to windward you must keep those lifting surfaces down there moving forward *fast*, to generate the lift needed to offset the pressure of the wind on the sails that tries to push the boat to leeward. This is much more important in a ‘914 than in an old-fashioned design, like the cruising sailboat that the Fairwind 900 is intended to resemble, for example, where the “barn door” keel is less dependent on lift to prevent side-slipping. This has very important implications for sailing to windward.

“Pinching” (pointing higher than the usual angle with the sails trimmed in, with the sails on the ragged edge of luffing) is *deadly*. As soon as the boat slows down a little, even though its apparent pointing angle to the wind remains high it begins to slip more to leeward through the water. Thus its true course through the water is no closer to the target (the windward mark) or even a little lower. When you pinch you lose forward speed and lose ground to leeward as well. The only time pinching will work, and then only for a very few seconds, is when doing so will let you squeeze around a windward mark without having to make two extra tacks. And never pinch to spill wind when overpowered by gusts like you may have been taught to do with a conventional (read, old-fashioned) sailboat. Instead, keep your CR 914 driving at full speed through the gusts and ease the sheets slightly to depower the sails when necessary to keep her on her feet.

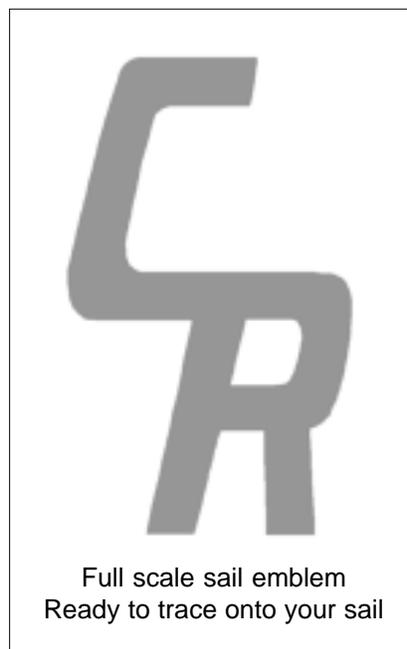
After you have fallen into a hole (one of those miserable spots, sometimes unforeseen and even invisible, where the wind just decides to quit) and your boat has slowed way down or stopped completely, when the wind returns you will slide sideways a lot until you accelerate enough to regain most of the lift from your fins. You can accelerate faster, and end up losing less ground to leeward, if you will ease your sheets and bear off substantially, maybe

as much as 30 degrees for a second or two when the wind starts to fill your sails again. As you begin to accelerate, gradually trim back in and head back up toward the appropriate close-hauled course, arriving there precisely at the moment that you get back up to full speed again. This takes practice to get it right...but *practice* is one of the things that this column is talking about, isn't it!

Stay tuned for future pearls: “When in Doubt, Let it Out;” “Go Right, Young Man, Go Right;” “Understanding Overstanding;” “Join the Conservative Party;” “A Recipe for Scallops;” and lots more. 📖



Photos like this one (taken by the editor) aren't good for much except filling space



WWW.CR914.RESOURCES

AMYA

www.amya.org

ISAF Radio Sailing Division

www.rudiosailing.org/

USSAILING

www.ussailing.org

ISAF

www.sailing.org/

AMYA CR 914 page

www.amya.org/cr914/cr914.html

CR 914 NEWS archive

www.amya.org/cr914/crnews.html

CR 914 message board/ListServe (Yahoo!)

<http://groups.yahoo.com/group/cr914class>

2004 CR 914 Nationals website

www.rcyachts.com/Nats/2004/NATS2004.htm

A practical guide to radio-control theory

www.ann-neil.supanet.com/

[What%20happens.pdf](#)

Chesapeake Performance Models

www.rcyachts.com

Model Sailing Center CR 914 page

www.rcyachts.com

Radio repair service

www.dnmelectronics.com/

CR 914 club websites

Chesapeake Bay Model Racing Association

www.rcyachts.com/CBMRA.htm

Mid-Missouri Model Sailing Club

www.m3sc.org

Houston, TX CR 914 club (The Yacht Club)

<http://home.entouch.net/lark/yc>

Cincinnati Model Yacht Club

www.regatta1.com/cmcy

Cleveland Area CR 914 fleet (Edgewater Y.C.)

www.cr914.org

If your club has a CR 914 website that you would like to have listed here, email its URL to rhm@ussailing.net

New Boats and Owners

Sail No.	Last Name	First Name	City	State
1185	Pozen	Thorn	Washington	DC
1186	Rust	Andy	Anthony	KS
1187	Mitchell	Steve	Mason	OH
1188	Morton	Robert	Newport	RI
1189	Normand	Bernard W.	West Chester	OH
1190	Edmands	Robert A.	Guilford	CT
1191	Johnson	Greg	West Chester	OH



Sharp HospiceCare Charity race at San Diego Yacht Club, September 25, 2004. 150 guests watched and bet on boats with donations to the charity, while a play-by-play announcer called the races. (Sandy Purdon photo)

How to Build a Club YOURSELF!

Want to race but don't have a local group of CR 914s to race with? You've built a boat; you can build a club almost as easily. You'll find lots of pointers and help on the AMYA website at www.amya.org/clubstuff.html, and the CR 914 class office has a New Fleet Package available as well (contact the class secretary to obtain one). All it takes to get an AMYA-sanctioned club started is a group of three AMYA members (it also helps to have a body of water to sail on ☺). Then submit the form that you will find at www.amya.org/clubform.html.

Hurricane hits AMYA

The Membership office of AMYA is located in Michelle Dannenhoffer's home in Melbourne, Florida, which sustained major damage during a hurricane a few weeks ago (fortunately the computer survived). She says that applications are again being processed but membership packets have not been able to be mailed as yet. If you need to join AMYA soon—like in time to be eligible to race in the CR 914 Nationals—it would be wise to call Michelle (888-237-9524, toll free). She says that she will be happy to give you your AMYA membership number over the telephone.

2005 Nationals, anyone?

It's time to begin to plan for the 2005 Nationals—yes, one year is the right amount of lead time. At present the field is wide open, and although the first bidder is not assured of winning the honor, getting through the door first certainly won't hurt your club's chances of winning this honor.

Bids must be reviewed by the CR 914 Advisory Committee before one is chosen, using criteria that the AdCom has been developing for the better part of this year. If you think your club is interested please notify the class secretary ASAP.

**Chesapeake
Performance
Models**

www.rcyachts.com

Dave Ramos

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



Another very high-quality photo, this one taken during the 2004 Midwest CR Racing Circuit Regatta in Cincinnati in August, by Steve Mitchell. (Why does #1122 always have to be in last place when these great pictures are taken???)

Hagar the Horrible

Chris Browne



Each new CR 914 owner receives, among a variety of goodies in his/her registration package, some information about tuning. Traditionally this had been a copy of data that Chuck Winder collected by making measurements of boats that finished near the top at several championship regattas (published in Issue 9 of the *CR 914 NEWS* back in 1997). Several years ago Steve Lang used those data to create his Thin Air Model Yacht Club Tuning Guide (http://sailcr914.com/CR914_Tuning.html). Then, after winning the 2002 Nationals, Geoff Becker used Steve's compilation of Chuck's data as the point of departure for his CR 914 Tuning Guide that was published in Issue 35 of the *NEWS*. What follows on the front and back of this page is the result of the editor's synthesis of these three documents, with a few minor modifications of his own. It is intended to be a step-by-step, cookbook-style, tuning guide, written primarily for new owners who want to be able to start racing their new boats with a tuning setup that will get them in the boat speed ballpark when they race against veterans of the "tuning wars." It is now included with each new Registration Package, and is reprinted here for those owners who may not be familiar with its predecessor documents.

CR 914 Initial Setup and Tuning Guide

To get your new CR 914 in the "tuning ballpark" so that its boatspeed will be virtually equal to that of the veteran CR 914s it will be racing against, simply cookbook your way through the following steps.

Adjusting the Rudder

Turn on your transmitter and boat electronics (always turn on the transmitter first and turn it off last, to avoid the risk of damaging your servos). The transmitter **rudder joystick** will center itself. Now center the rudder fine-tune control on the transmitter.

Check the position of the **steering servo arm**. It should be at 3-o'clock. (the bow is 12 o'clock). If not, remove the screw and adjust it to that position with the radio on.

Looking at the **rudder** from astern, see if it is parallel with the keel. If not, carefully disconnect the steering connector rod and adjust the plastic ball joint pieces on the ends (screwing the ball joint pieces clockwise will shorten the rod.) Your goal is for the rudder to be perfectly aligned with (parallel to) the keel with the rudder joystick and fine tuning controls centered when you are done.

Standing Rigging

Start by adjusting the **jib boom downhaul slide** (where the jib boom is tied down to the deck) so it measures approximately 2-1/2" inches from the forward end of the jib boom (dimension A on the diagram). Do not glue. Then adjust the **jib boom downhaul line** so there is about 1" between the deck surface and the boom's centerline (dimension B).

Next, loosen the shrouds slightly and the jib halyard and forestay quite a bit. Now adjust the **backstay** so the distance from the bottom edge of the transom to the center of the top of the mast top fitting (part 20), on the centerline of the mast tube, is 53-3/4" (dimension C). Hold the top of the mast forward while adjusting and making this measurement so that the length is set with the backstay taught. Now adjust the **forestay and jib halyard** so they are equally tensioned and moderately taught. Recheck dimension C when you are done.

Next, adjust the **lower shrouds** until they are equal lengths, thus centering the lower mast section port to starboard, and make them taught. (A mast-centering jig made of two 30" hardwood "stringers" from your local hobby shop makes this operation easier.) Now adjust the **intermediate and upper shrouds** so that the mast is straight when viewed down from the top. These shrouds should be snug but not

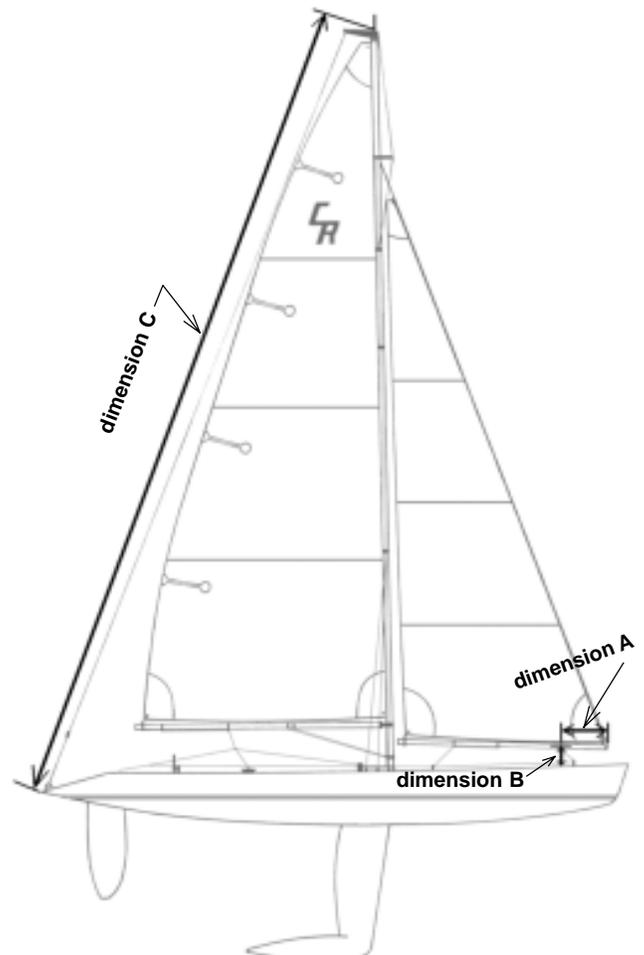
too tight.

The **jumper stays** can be installed permanently and with no adjustment. If you do this make them as taught as possible. Some sailors use a slide ring to tighten both jumpers. Cut one hole off a spare bowsie or use two holes from a spare servo arm, and run the jumpers through the holes in this adjuster. Set the adjuster close to the top of the mast before tying off the jumper stays as taught as possible. If more tension is necessary, simply slide the adjuster down.

Your mast should now be plumb, (no list to either side), properly raked (fore and aft) and perfectly straight.

Running Rigging

With your transmitter and boat electronics turned on, move the **sail joystick** and its fine-tuning slider to their fully



Two Timely Tuning Tips

Buy a 1/4" steel measuring tape (a Stanley "PowerLock" 10' tape is ideal). With colored permanent markers mark the tape with a green line at 53-9/16", a black line at 53-3/4" and a red line at 53-15/16". When the wind is strong adjust mast rake (dimension C) to the red mark; when it's moderate use the black mark, and when it's light use the green one.

Cut 3/4" x 1-1/2" pieces of moderately coarse wet sandpaper and fold them into squares, with the grit facing inward. Pinch those slippery Spectra lines in one of these sandpaper wedges to get a firm grasp on them when you adjust your bowsies.

trimmed-in positions, The arm on the sail trim servo should be at about 11:00 to 11:30 relative to the bow. Now adjust the **common sheet in the cockpit** so the knot connecting it to the split jib/main sheets is just forward of the deck exit turning block on the aft port deck. The knot should not enter the block.

Next, adjust the fore-and-aft piece of the **three-part mainsheet bridle** so the center of the ring is 7-1/4" to 7-1/2" aft of the mast. Now adjust the port and starboard parts of the bridle so the ring is centered, 1/8" to 1/4" below the mainsheet string-loop "block" on the boom when the boom

is centered. The ring should be directly under the block. If it isn't, readjust the bridle or, if the block is not attached to the boom at a point where the mainsheet can lead straight vertically from the block to the bridle ring, detach the the string block from the boom and build a new one at the proper location.

Now, with the the sail joystick in the full-in position and the fine tune control on the transmitter centered, move the **mainsheet attachment point** on the boom so the boom is tightly centered with no strain on the servo (at the point where the servo just stops humming). When the sail is under load from the wind, it will ease towards the gunwale.

Next, adjust the **jibsheet attachment point** on the jib boom so the aft end of the jib boom is pointing at the lower shrouds.

Now adjust the **main and jib outhauls** so the distance from the belly of the draft (curvature) of the foot of the mainsail to the boom is about 1-1/4" and about 1" for the jib.

Finally, adjust the **boom vang** so it is barely taught. Moderately firm pressure with your finger under the aft end of the boom should lift it about 1/8".

Voilà! Your boat is now tuned for moderate air and should sail well, without excessive weather helm or significant lee helm, in nearly all conditions. To optimize performance in light and heavy air, you can make the adjustments shown in the table below. 🚢

CR 914 Tuning Table

Wind strength	Moderate	Strong	Light
Mast rake (dimension C)	"neutral" (53-3/4")	forward (53-15/16")	back (53-9/16")
Lower shroud tension	no slack	no slack	tight
Backstay tension	++	+++ ("high C")	+ (barely taught)
Outhaul settings (mainsail draft – slightly less for jib)	mid (~1-1/4")	out (~3/4")	in (~1-1/2")
Cunningham tension	no slack	minimally tight	slack
Boom vang tension	++	+++	+
Main boom tip	out ~2" (distance from centerline, with sails filled)	out ~3"	out ~1" to 2"
Jib boom angle from centerline	out ~10° (points at lowers)	out ~13° (points at uppers)	out ~10° (points at lowers)

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rhm@ussailing.net
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1206 Castle Bay Place
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