

❖ CR 914 NEWS ❖

Issue 18

MAY - JUNE 1999



SUMMER HEAT WAVE GETTING YOU DOWN?

Patience, it won't last forever.

STARTING MODEL SAILBOAT RACES

The objective of our class is to promote racing of the CR 914. The start is arguably the most important part of a race. Learning to win the start is a challenge. It requires integration of timing, knowledge of the rules, boat handling, etc.

I propose that the class use the standard AMYA two-minute start tape for all racing and practice. Then when we visit other venues and compete at the bigger regattas such as the Nationals, we are comfortable with the start tape.

Also, the ISAF Racing Rules of Sailing, Appendix E for model boats, specifies a two minute start sequence.

(Continued on page 5)

Inside This Issue

Regatta Reports and Notices	2
New Assembly Instructions	3
Racing Rules of Sailing	4
Reliability and Saltwater	6
Radio Range Mystery Solved	6
New Members	7
Battery Management	7
The Boatyard	9
Race Course Marks	8

Class Secretary's Report

STILL LOOKING FOR GOOD PHOTOS.

If you have good action shots of 914's, send them to me. I would like to see boats in strong winds submerging, pitchpoling, planing with big bow waves, etc. Use e-mail or US Mail. Also send photos showing your venue, club house, lots of boats at the start, etc. And don't forget your people. Or good photos of innovations you have used to improve your boats. Even photos of damaged boats would be interesting or even humorous. Help me make the NEWS as good as it can be.

Registrations

This month there are ~500 boats registered and 226 get the NEWS.

(Continued on page 3)

FOURTH CR 914 REGION 1 REGATTA

June 27, 28, 1999

Hosted by the Marblehead MYC, Marblehead, MA, at Redd's Pond.

CHALLENGING is the word that best describes the sailing conditions. Both days were in the low 90's with very light and variable winds. The almost non-existent winds on Sunday made it even more uncomfortable.

Some have suggested that a word stronger than "variable" is needed to describe the winds at this regatta. The Thesaurus, however, yielded nothing more appropriate. We may have to coin a new word.

Jose Venegas won by 10 points over second place Kevin Dooley. Jose used his outstanding light air talent on Sunday to move into the lead. At the end of 21 heats on Saturday he was in second behind Kevin by four points. The winds on Saturday, though light, were stronger than Sunday. Jose's excellent concentration and boat preparation has been unbeatable in light air all season.

Marcel Nyffenegger was third despite having DNS's for the first seven heats on Saturday. (He arrived late from Block Island Race Week where the boat he crewed on placed third.) His average score for the 26 heats he sailed would have tied him with Kevin, though Kevin had more firsts.

Ned Lakeman, an old new owner, was fourth followed by Chuck Winder and Hatch Brown. This group was clearly the hotly contested B fleet for the regatta. See the points in the table below.

Volunteer race officials JR LeBlanc, treasurer of Marblehead MYC, and Jim Dolan did an excellent job managing the racing. JR supplied the beverages that were so necessary to keep us hydrated because of the heat. He also supplied paper towels to the participants to mop the heavy perspiration from heads and necks.

Ned Lakeman at 74 years never had a problem with the heat, though some others said they felt faint at times. Kevin, at 18 years, only complained about the adverse non-winds on Sunday, the heat didn't phase him.

RACE RESULTS

Thirty-three heats were sailed with five throwouts. As usual, the throwouts did not effect the final results.

SKIPPER	Points
1 Jose Venegas	54
2 Kevin Dooley	64
3 Marcel Nyffenegger	86
4 Ned Lakeman	104
5 Chuck Winder	107
6 Hatch Brown	109

The small turnout was disappointing. Prior Region 1 Regatta's have had ~12-15 boats. Many of the local owners are involved in big boats and have started families. Why there were not more from out-of-town we don't know. We will be considering changes for next year to improve the number.

Chuck Winder

1999 CR 914 Region 4 Regatta

June 19,20, 1999

Hosted by the Edina MYC, Edina, MN. (Edina is a suburb of Minneapolis.)

Edina MYC was the host for the first CR 914 National Championships in 1995. The race organizer for that outstanding event was Ralph Peters who sailed in this event.

The venue was the North Pond of Centennial Lakes Park. Rainy weather reduced the turnout for this first Regional Regatta. Weather is always an important ingredient in boat racing of all kinds.

After an hours wait for the rain to stop on Saturday, ten heats were sailed. Wind conditions were variable, occasionally reaching 10 knots.

Sunday offered better weather. Four heats were completed. We alternated with two other classes who were racing - US One Meter and an open class.

Tony Johnson, 1995 National Champion, hasn't lost his touch, easily taking first place. Bill Frank was second and Rod Crawford, despite the duties of RD, was third.

Place	Skipper	Points
1	Tony Johnson	19
2	Bill Frank	32
3	Rod Crawford	42
4	Ralph Peters	58
5	Chuck Bottemiller	—

Only one protest was heard concerning clearance to tack just after the start of one heat. Ruling was in favor of Bill Frank who was judged to have had sufficient room to tack.

The race was operated efficiently by Race Director Rod Crawford. All participants enjoyed the event. It is planned to hold another regional event next year but we will probably pick a weekend other than Father's Day.

However, despite the weather, CR 914's had excellent racing both days.

Tony Johnson/Alex Raupp

Virginia Model YC

plans a **Region 3 Regatta**
at **Norfolk YC, VA**

September 11,1999

John Atwood is the contact at:

(757)596-9701

atwoodj@tea-emh1.army.mil

More detail in future NEWS.

**1999
National
Championships**

October 29, 30 and 31

Hosted by

**The Larchmont MYC
Larchmont, NY**

Buttons Padin, Commodore
erpadin@aol.com

**LMYC's excellent Spring
Regatta this year had 50
boats.**

**Commodore Buttons expects
even more at the Nationals!**

**NEW ASSEMBLY
INSTRUCTIONS
for the CR 914 Kit**

The CR 914 kit has had two assembly instructions that the new builder had to coordinate. The AG Industries Assembly Instructions are excellent compared to most other interpretations of Japanese instructions. However, when Greg Worth, Worth Marine, first built from the kit in 1993, he recognized several improvements had to be made to make the kit truly superior.

The new owner of a CR 914 kit has had to face the challenge of integrating the AG Industries "Assembly Instructions" with the instructions for the Worth Marine "CR 914 Upgrade Kit". It was necessary to jump back-and-forth between the two documents and sort out which applied. Many builders had difficulty with this based on the numerous calls for help that Greg has always responded to.

For a long time Greg has wanted to create a single document that integrated both the above instructions. Such an undertaking is a very large job and he had not made much progress.

Meanwhile, Steve Lang, a new owner from Evergreen, CO, built his first kit without benefit of a completed boat to refer to. (In contrast, I live about 1 1/2 mile from Greg's store. Getting help and being able to look at a completed boat made my first boat quite easy.)

Steve called Greg and me frequently for help on how to do things, which screws to use, etc. He then drafted a document designed to help a new builder combine the two kit instructions.

Steve sent copies of his work to Greg and me. What Steve had done was excellent for someone who had never seen a completed CR 914 except his own. But with his approach there would have been three documents for the owner to wrestle with.

Steve's work got the ball rolling. Starting with Steve's write-up, Greg and I created

a document that is the primary assembly instruction. It uses the AG instructions as a reference. The original somewhat outdated Upgrade Kit instructions were discarded.

Greg plans to ship kits with the new instructions. The new instructions will not be perfect so you are asked to offer constructive criticism that will allow further improvements.

Ultimately, Greg wants to have only one instruction document. That goal is closer now and will be the next evolution of this excellent kit.

Chuck Winder

(Continued from page 1)

Twenty-three new owners are listed on page 7.

NEWS Copy

I am always looking for articles from you owners/subscribers. News about what is going on with your group. Problems you have had and how they were solved. Constructive criticism of the NEWS, the class rules, the kit, AMYA is always welcome. Send me any ideas that that can make the Class better for us all.

Good sailing,

The Editor

Before criticizing someone, walk a mile in their shoes.

Then, when you do criticize them, you will be a mile away and have their shoes.

Anon.

BOW BUMPER

By Chuck Winder

This subject was discussed at length in the March - April 1999 NEWS. The need for bumpers is still real. Unfortunately, little progress has been made.

The first step is to design the geometry of the bumper so that when it is a class requirement, the performance impact is the same for everyone. Work is started. We have found a material that can be used to produce a hard model of the bumper. This will then be used to create a mold to allow production of the rubber bumper itself.

The goal is to have bumpers available for use at the 1999 Nationals at Larchmont.

Stay tuned.

RACING RULES OF SAILING

A New Feature in the CR 914 NEWS

Introduction

For sailboat racing to be fair and fun, the Racing Rules of Sailing must be well understood and applied by all participants. The rules have been developed over many years from on-the-water experience of thousands of racers.

The rules we use for model racing are the same as the ISAF rules for full scale boats with small modifications defined by Appendix E for radio-controlled boats.

This new feature of the NEWS will present common racing situations that seem to cause the most problems.

Editor

ERRATA:

Mary Savage, US Sailing Rules Judge, Larchmont YC, wrote to me about the caption that I wrote for under the diagram on page 11 of the March - April 1999 NEWS. The caption should have read:

When L completes her tack onto starboard, despite completing it within the 4 length zone, she becomes ROW (right-of-way boat) under rule 10. Rule 18.3 applies to W.

Thank you Mary.

Recommendation:

Everyone who races sailboats should own a copy of the racing rules and a text on the subject to provide interpretation of the subtleties of rule application.

One such text is: "Understanding the Racing Rules of Sailing through 2000", by Dave Perry. Buy through your local bookstore or from US Sailing, 800 US SAIL-1, (800 877 2451). Make sure the copy you get includes Appendix E for model boats.

MARK "ROUNDING"

(The term "rounding" is replaced by the word "passing" in the ISAF rules.)

This week two simple cases of mark passing will be illustrated. As all of you know who race models or full scale boats, most of the excitement occurs when the fleet is passing marks of the course.

In the absence of other boats, there is only one best track around a mark. When more than one boat is passing the mark, they all want to follow that same track. There is often a certain amount of disagreement about who has the right to that track and what restrictions apply to him and the other boats.

ISAF Rule 18, PASSING MARKS AND OBSTRUCTIONS, addresses the above problem. This may be the most important

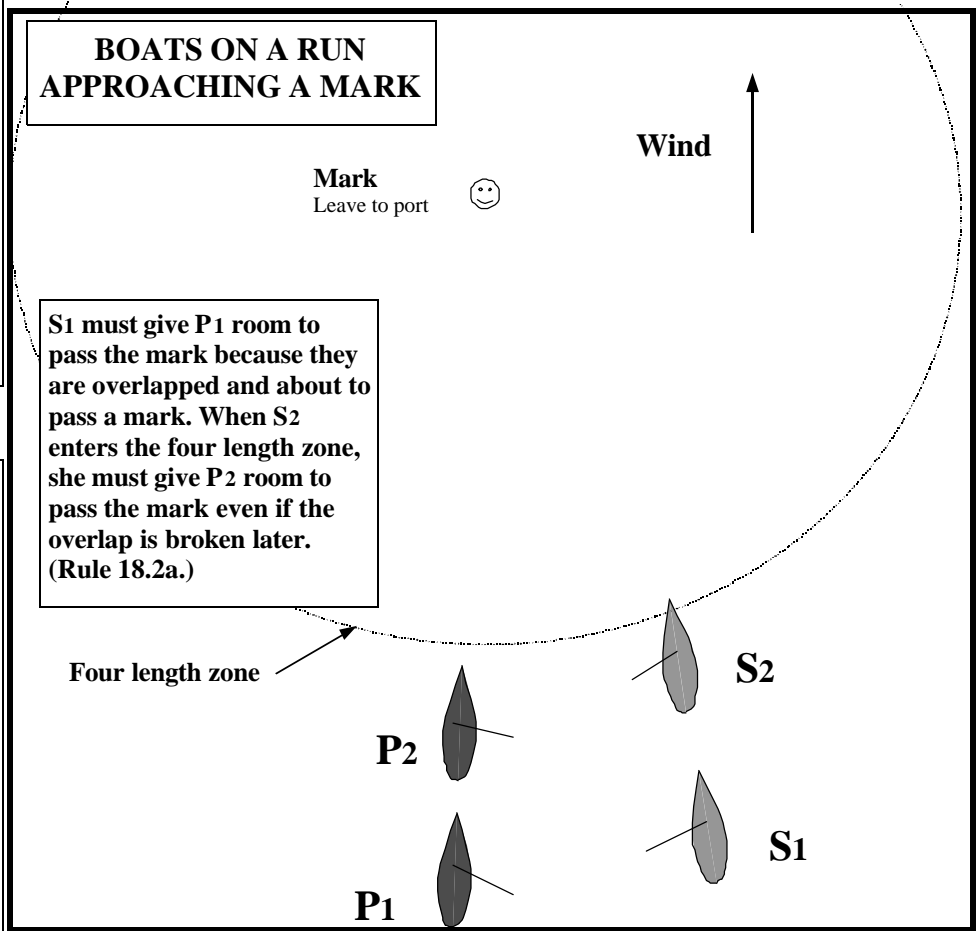
rule to thoroughly understand to successfully race your boat.

APPROACHING A MARK WHILE ON A RUN

An important provision of Rule 18.2a is illustrated below. The message is that when not on a beat, S (starboard tack overlapped boat) does not have the usual rights over P. When approaching a mark, S must give P room to pass the mark.

P on the other hand must pass the mark as closely as possible (called a "seamanlike rounding").

S must be careful to allow P room to complete her jibe without hitting her boom.



APPROACHING A MARK WHILE ON A BEAT

Rule 18.3 Tacking

The rule deals with boats on opposite tacks beating to pass a mark. The illustration below shows **P** starting her tack well outside the **4LZ**. She will complete the tack inside the **4LZ**; therefore, Rule 18.3 applies.

(While **P** is tacking she must stay clear of **S**; Rule 15 applies first and then 13.)

The prudent action for **P** is probably to duck under **S**'s stern instead of tacking for the mark.

The text in the illustration tells the story. **P** is at serious risk of a foul if she interferes with **S** as **S** steers to pass the mark. She has no protection under Rule 15 after she completes her tack. In fact if **S** gets an inside overlap even though she is within the **4LZ**, **P** must stay clear.

The message is clear. The new ISAF rule 18.3 is aimed at preventing the chaos of port-tack boats approaching the mark on, or close to, the layline. The penalty is a 720 or DSQ.

The prudent skipper on port tack will approach the windward mark so as to begin his tack to starboard at least six boat lengths from the mark.

(Continued from page 1)

Description of the tape

The AMYA tape has ten start sequences, thus the tape is not rewound after each start, a convenience. Each start signal is a little more than two minutes apart. It is loud and clear.

Each start sequence has an audible one second "tick" throughout. A professional voice clearly gives the warning signal by saying, "Two minutes to start". He then announces 1 minute 30 seconds and 1 minute 15 seconds.

The preparatory signal is his announcement of one minute to start. He gives the time at ten second intervals until he counts down each second for the last ten seconds.

The start is at the beginning of the gong.

Marblehead MYC's Experience

We have been successfully using the tape for about two months for two reasons. The first is the one given above. We want to train using a standard start sequence.

The second reason is to make the progress of the racing smoother. Let me explain.

The tape player is stopped the instant the start gong ends.

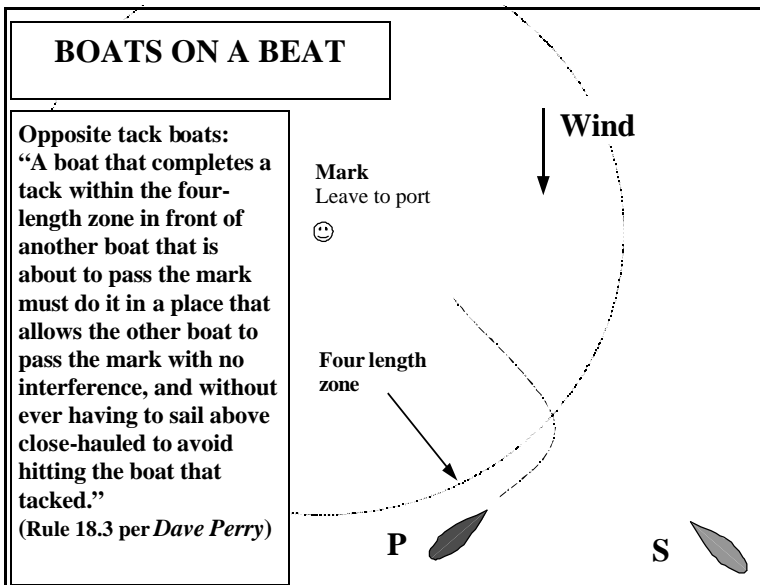
As soon as the last boat finishes a heat, the tape player is started. The result is that the next heat's start signal is two minutes from last boat's finish. Each owner can do his tuning, change batteries, or study his navel for about one minute. He then must get his boat in the water before the preparatory signal.

What was happening at our pond was that the time between heats was irregular and often too long. The majority were anxious to race and a few were tuning, changing batteries, etc. The race director, who is one of the skippers, had to determine when to start the next heat based on when everyone appeared to be ready. This is a frustrating task.

Using the two-minute start tape to space the heats seems to work much better and we get more racing. If a skipper has a special problem he may request a repair delay once during that day. And the RD can always delay things if necessary.

Order the Tape, a standard cassette, from Tom Shipp, who runs the AMYA Chandlery. (He accepts charge cards.) It's \$7. (Tom can also supply the old one-minute tape.) 614-792-5798, Fax 792-5762, tshipp@netset.com

You can **make your own tape** by downloading a single sequence from the **AMYA Web Site**: - <http://www.intellisys.net/amy/>



A candidate came home one night and told his wife the glorious news: "Darling, I have been elected."

"Honestly?," she replied exuberantly.

"Hey," he said, "why bring that up?"

RELIABILITY and SALTWATER

RADIO RANGE MYSTERY IS SOLVED

A Fix for Electronic Blues?

Rob Follet, a member of American YC and Larchmont MYC, reports on a product named "Aeroplate". LMYC sails all year round in the difficult environment of their saltwater harbor. They have evolved practices that give good reliability, but there is still room for improvement. The text below is edited from an e-mail from Rob, March 27, 1999.

To those suffering from "servo malfunction blues", AEROPLATE may be the answer. It stopped annoying servo jittering and removed salt from the inside of my Futaba sail winch. It now runs faster than when it was new.

According to Aerotrend:

1. Best results are obtained if used with a brand new system. The product will prolong the life of the equipment for years.
2. If used with lightly contaminated equipment, it will clear most or all of the contamination and prolong the life.
3. Even severe contamination may be helped.

How to use Aeroplate

Carefully disassemble the sail winch, rudder servo and receiver. Take note how to reassemble the gears in the servos.

Removing the motors is not necessary. (I did it however and feel the results were even better.)

Submerge everything in Aeroplate (receiver, crystals, connectors, gears, etc.). Use a plastic or glass jar. I did one servo at a time. Run the servos submersed for a minute or more to thoroughly lubricate them.

When finished let everything drain into a container. Aeroplate is reusable.

After the initial treatment only routine flushing is required. Once a month simply wash off any light salt mist on the equipment between flushings.

After Submerging In Water

If the servos are submerged in saltwater,

rinse immediately with fresh water. Then repeat the "How to use Aeroplate" procedure again.

Ordering

Website retail price for a 16 oz. bottle is \$49.99.

A group of sailors should consider a 128 oz. case. I bought a case for \$150 (\$18.75 a bottle). I can't promise that deal still stands but it gives you a target price. Simply tell them you are a model sailing club and would like a deal on a case.

If you have any questions contact me at: folletr@aol.com

Rob Follet
CR-914 #184

AEROTREND PRODUCTS,
31 Nichols Street
Ansonia, CT 06401-1106,
(203)734-0600, fax (203)732-5668
Web Address: www.aerotrend.com
E-mail: sales@erotrend.com

Editorial Comment:

Aeroplate sounds too good to be true, but Rob's experience has obviously been good.

Aerotrend promised to send me literature on Aeroplate several times but never delivered. They may have found there is little profit in sending brochures.

To those of you who use Aeroplate, please report on the results for future reports in the NEWS.

Chuck Winder

Recall that in the March-April 1999 NEWS, page 8, two identical radio systems had very different ranges that could not be explained. Using the standard "Tx (transmitter) antenna down" test, boat A was operable to beyond 200 feet. The puzzle was boat B was out of control at about 25 feet!

The only difference in radio installations was the Rx (receiver) location. Boat A had the Rx under deck to starboard of the mast. Boat B had the Rx under the cockpit.

Mystery Solved

The cause of the shorter range was location of the battery connection wires between the batteries and the switch. In both boats the battery wires had been made extra long to allow flexibility in battery location.

Each time the battery pack was installed the excess wire was loosely coiled and stowed to starboard of the main hatch opening. Because of the aft location of the Rx on boat B and use of an internal antenna, the antenna was routed forward to the bow along the starboard edge of the hatch opening.

When the coil of battery wire was moved from the above position to a more centered location within the hatch, the radio range (Tx antenna down) increased from 25 to ~200 feet! The same as boat A! The new location of the wire was farther from the antenna.

The experiment was repeated four times by moving the wires back and forth with the same result

Conclusion

Battery wires and their routing in the boat can have a significant effect on the range performance of the radio.

Additional Observations

1. Boat B had clearly experienced more "glitching" than boat A. Apparently the weaker signal getting to the Rx made the system more sensitive to

(Continued on page 7)

(Continued from page 6)

other radios, reflected energy from fences, etc.

- Battery wires in the boat should probably be twisted. In both boats the battery wires were not twisted. In any good radio installation, battery wires are twisted their entire length to reduce interference. (Look at the battery wires inside a transmitter.)

Recommendations

- Twist the full length of all battery wires in the boat.
- Bundle battery wires well clear of the antenna.

NEW RADIO FOR THE KIT

Because the original *hitec Ranger II* radio was discontinued, Worth Marine has changed the stock radio in the kit. For a brief time the *Futaba Attack-SR* was shipped in the kit because *hitec* could not ship the required quantity of the new *Ranger IIz*.

The *Futaba* radio does not have a battery charging jack which is an inconvenience to those owners who want to use rechargeable batteries.

The kit now has the *Ranger IIz* radio system, the new model that supercedes the original *Ranger II*.

Pros and Cons of the New Radios

- Both new transmitters give 65% longer battery life and are smaller and lighter than the original *Ranger II*.
- They both use only the 75 MHz band which offers 30 channels. Neither is available in the 27 MHz band which has six channels. The latter is only a problem for a big fleet where the loss of six channels makes individual assignment of channels more difficult.
- The *Attack-SR* has an audible low battery warning and the *Ranger* does not.
- The *Ranger* has a charging jack and the *Attack* does not.
- The *Ranger* has three battery status lights and the *Attack* has five.
- The battery compartments on both radios are designed for separate cells, not soldered and shrink wrapped packs.
- Appearance of the two radios is different.

Both radios are excellent for the job.

BATTERY MANAGEMENT

I know you have all been fascinated by the revelations on batteries appearing here in the NEWS. You will be disappointed this issue because nothing is offered on the subject. Just hang in there. ☺

Editor

NEW MEMBERS

Last Name	First Name	City	State	Sail Number
Backstrom	Douglas	Evergreen	CO	989
Castell	Charles S.	Rossville	IN	291
Chapin	James	Oak Park	IL	676
Chisholm	Robert M.	Evergreen	CO	747
Cika	Robert J.	Portland	CT	601
De Laria	Don	Vail	CO	986
Dubuc	Paul	Old Saybrook	CT	602
Hall	Richard	Old Lyme	CT	603
Hardy	Sue	Winthrop	MA	803
Hermann	Al	Evergreen	CO	770
Hunsinger	Hugh	Cornwall	NY	605
Lakeman	Edmund W.	Ctr. Ossipee	NH	42
Martin, Jr.	Ben	Essex	MA	634
Martin, Jr.	Ben	Essex	MA	644
McCoy	John	Norfolk	VA	290
Merritt	Knight	Old Saybrook	CT	600
Paisley	Sam	Montgomery	IL	581
Pitts	Frank	Reston	VA	810
Poynter	Jay	Charlotte	NC	613
Rathjen	John W.	Hixson	TN	495
Rosenfeld	Larry	Marblehead	MA	310
Sheffield	Timothy	Golden	CO	932
Tower	Sargent F.	Old Saybrook	CT	606

If you try to fail, and succeed, which have you done?

RACE COURSE MARKS

I am frequently asked by new owners: "What is used for buoys for marking the racecourse?" Three different approaches are given below. They may spark your own creativity to produce marks that work for your venue.

Excerpt from the CR 914 NEWS, Sept./Oct. 1997

The 1997 Nationals were in Xenia, OH, hosted by Miami Valley Model Yacht Club.

Our clever hosts used race marks designed to be placed and retrieved from shore without a boat. They were thrown from shore to the desired location. The retrieval line ran through an eye on the weight and then up to the buoy. Once the mark was in position, tensioning the line from shore assured that the line to the buoy was vertical and would not foul on keels of rudders.

If the mark needed to be repositioned, it was simply pulled in and thrown again. Sometimes a mark had to be located where it was too far to throw. The mark and weight were then loaded on a small raft and towed out using the 914. When in the correct position, the mark was tugged off the raft. Clever!

The mark floats were hollow bronze toilet tank floats painted in Day-Glo colors and with a flag. The weights were beverage cans filled with something heavy. The retrieval lines were inexpensive string wound on homemade reels. Every club should have something like that.

COURSE MARKS

E-mail from JT Charles
jtcharles@charlesindustries.com

JT is from Schaumburg, IL (near Chicago).

Chuck,
For marks, I took four blue and white water ski floats - running fishline through the center hole attached to a spindle leader.

I then bought several 36" long leaders with hooks and loops. Depending on the depth of the pond/lake you can adjust your leaders. I then attached two lead weights to the end of the last leader.

We set two for the starting gate and one for the weather mark for Windward/Leeward courses. Occasionally we set triangles with the fourth mark. We use a fishing pole with a triple hook lure - casting around the marks and reeling them back in.

We are not limited to setting the marks near shore. We can throw a mark far out into the pond and after racing, retrieve it by dropping the hook in the back of one of the boats, then by sailing around the mark while letting line out we hook the mark and then sail the mark back to shore. This program works great!

Calm seas and favorable winds in '99.

J.T. Charles

E-mail from Rob Follett
folletr@aol.com
American MYC
Rye, NY 10580

Rob made the marks for the excellent Larchmont MYC 1999 Spring Regatta. The marks were the most easily identified I have seen. At Larchmont the marks are set using a Whaler, Ed.

THE NAMING OF MARKS

To make racing better the marks should be readable. We have tried painting them different colors which works until the white one looks like the yellow one, and the red one looks like the orange one, etc. Suddenly the pre-start questions come out like machine-gun fire... "Which orange mark, the dirty one or the one to its left?". Instead we have come up with a better solution, naming the marks. Why not, they

do it in the ocean?

We took tall buoys and painted them all black. (*"Tall buoys" are mooring pickup buoys having a vertical fiberglass rod weighted with lead at the bottom.*) I used black car primer because not all the tall buoys were the same color and some were in bad cosmetic shape. Black primer covered all the different colors and hid any cracks in the foam. The second step was to gather enough 64 oz. cardboard milk and orange juice containers for twenty marks.

(We used ten marks per course and had two courses at the Larchmont MYC Spring Regatta. This allowed for easy course changes do to wind shifts before the start.)

The tops of the cartons were cut off at the bend. A hole large enough to slide onto the tall buoy stem was centered in the bottom. A brace with a centered hole was inserted across the open end. This keeps the carton from flopping around on the buoy.

Next the cartons are covered with white sandable primer to hide the printing. Now paint them the color you want. We used Florescent Yellow for ten buoys and Neon Blue for ten. Finally put 6" contrasting Nylon numbers on each of the four sides of the carton. Blue marks got White numbers and Yellow got Black numbers. (By the way, the bottom of the carton is now the top.)

Now slide the carton down the tall buoy and cut the stick two and a half to three inches above the carton. This leaves enough to grab the stick and prevents the rigging from catching. You should have a box to store all the cartons in when you are not using them.

The numbers really stand out at quite a distance and no one ever questions which # 8 you are talking about.

Rob Follett

THE BOATYARD

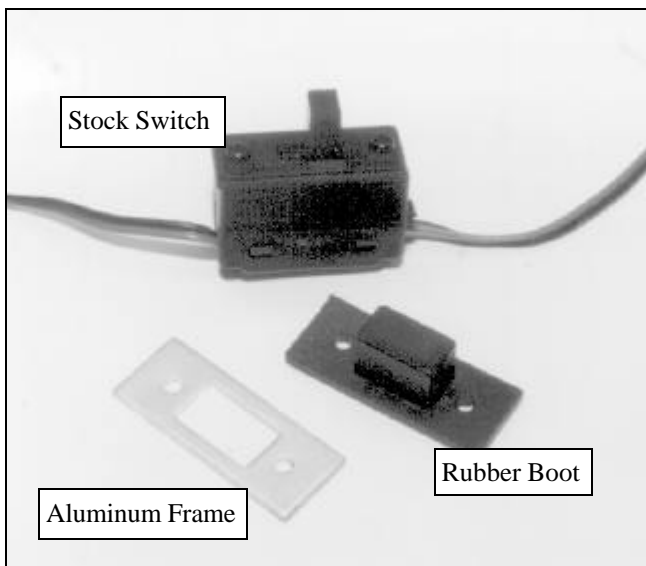
EXTERNAL BOAT SWITCH

The NEWS has long espoused using external battery switches on the boat, especially in saltwater or on heavy weather days on freshwater. Once the main hatch is sealed with Vaseline© or tape, it so much more convenient to be able to turn the batteries on and off without disturbing the hatch seal.

A product that satisfies that need is illustrated in the photo. It is the ultimate in simplicity and looks pretty good, too. It is available from the catalog house "Hobby Lobby", (615)373 1444, part no. GRP3940, \$4.55. (There was no shipping charge, which surprised me.)

It is a simple soft black rubber cover with an aluminum frame. It can be mounted on deck or the side of the cockpit. It accommodates the stock switch and the switch screws are used to install it. A small rectangular hole and two screw holes must be cut in the hull.

The soft rubber cover allows easy actuation of the switch.



TELLTALES

Steve Lang e-mailed to ask about the location and material for telltales on the sails to use for sail trim and steering.

Material

Bright red Angora yarn is my choice. Mine was bought in ~1960 when racing full scale one-design boats. It is expensive, about \$8, but one ball (or skein) is enough for a whole fleet for years. One usually has to order it from a yarn store.

Others use different stuff, but the Angora is the most visible and sensitive, in my experience. Does not work too good in rain, though.

Design criteria for telltales is visibility, softness and lightness. The bright red, large diameter and fuzzy Angora is very visible. It is soft and flexible. The slightest air flow movement is detected. And it is light so that in light winds the weight of the yarn doesn't cause it to hang down instead of moving with the wind.

Location

Use one pair on each sail. On the jib they are centered 13" up the luff and 2" aft from the luff, separated by ~2 1/2 ". They are 2" long so they won't get hung up on the headstay. The telltales on the main are 16" up and ~3" aft. They are 2" long, too.

By having the starboard one higher it is possible to tell which one is which despite the relative transparency of the sails.

I have also put telltales at the ends of the two middle main battens, but I have not used them. That location is useful on full scale boats.

Attach them using "dots"

of white vinyl electrical tape (same size as the dots Worth puts in the kit for the sails). It sticks good but comes off without damaging the sails when the telltales have to be replaced.

How to use them

Some local skippers use no telltales on the sails, nor windhawks at the mast head! They just read the sails. That wouldn't work for me.

Going to windward steer the boat using the leeward telltale on the jib. The sails are trimmed in to what is judged to be best for the conditions. When both telltales are flowing aft and parallel, the boat is being steered correctly. If the leeward one blows downward or flutters, the boat is heading too low and must be steered slightly closer to the wind.

Of course, off-the-wind on a reach the boat is steered on the course desired and the sails are trimmed so that the telltales are flowing properly. On a run the telltales are of little use.

The mainsail telltales are used mostly for tuning to adjust the relative trim angles of the jib and main.

After enough time sailing the boat close enough to easily read the telltales, an "instinct" for what is right lets the boat be sailed well when it is too distant to read the telltales

DISCLAIMER What is reported above is what I do and is not necessarily the best material or arrangement. A couple years ago I had telltales all over the sails and this is what I settled on. Each skipper should do a little experimenting on his own.

Chuck Winder

BOAT PAINT

In previous articles in the NEWS I have recommended the use of aerosol cans filled by a local automotive paint supply store. The objective was to get a your own color and to get top quality paint.

Unfortunately, the paint stores in the Boston area no longer do it. The one store I dealt with stopped doing it because it was too expensive for them to make a profit. Many other stores were called with the same result. Other owners have called me to report they, too, were unable to find a store that would supply the custom filled cans.

These same stores will still make up any color you may desire if you have the spray paint equipment to apply it.

Automotive parts stores like NAPA and others almost all carry aerosol cans of automotive paint with a reasonable selection of colors. The local NAPA stores now stock their own brand, not the Martin Senour brand recommended in the upgrade kit instructions.

If any of you have used the NAPA product, give me a report on its performance.

Modify Futaba Connectors

Some owners have purchased Futaba servos either to get more sail servo strength or just to replace a failed servo. The first obstacle is that the Futaba connector won't fit into the Ranger II receiver.

Changing the connector is an obvious way to solve the problem. This requires soldering on a proper connector. Some of us can't do that.

Another way is to modify the Futaba connector so it fits. Fortunately the wiring convention is compatible, no changes there.

Just use an Exacto knife or single edged razor to carve the soft plastic of the connector so it fits.

First remove the ridge on one side of the Futaba connector. At this point it's still a little too wide.

Carefully carve the edges of the connector to make it narrow enough to fit. It helps if you have a caliper to measure the Ranger II connector so you know how much to carve away. Trial and error works, too.

Then chamfer the two edges the same as the Ranger connector.

If "con" is the opposite of "pro," then what is the opposite of progress?

PANEL GROMMET RELIABILITY PROBLEM

For reliability in racing, use of panel grommets to replace boom rings is discouraged.

The September - October 1998 NEWS discussed using 3/8" dia. *rubber panel grommets* to replace the *boom rings* and *boom springs*. The rings break and the springs hook in the rigging of other boats.

However, a panel grommet recently hooked the rigging of a boat! A boat on a run (mine) passed another boat too close so the end of its boom hit the leeward boat's backstay. The grommet snagged the backstay and spun the leeward boat 180 degrees before disengaging. Both boats suffered. One had to do a 720 penalty and the other lost several places in the race.

One alternative to boom rings uses a string clove hitch (see sketch) having many turns instead of the conventional two. Tie it around the boom over a piece of tightly wrapped plastic such as Saran wrap. After saturating the knot with CA glue, let the glue cure and remove the Saran wrap. The string sleeve should now be adjustable using fingernails to slide it along the boom. During high-wind sail flogging, it may slip, though I haven't experience it.

The Class needs a creative replacement for boom rings. If you have one, send it to me.

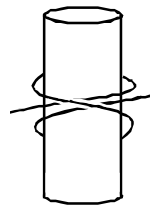
WATER PROOFING ELECTRONICS

Email from Steve Denis, CR 914 #1:

Hello Chuck,

I've stumbled across a good idea for battery holder and receiver waterproofing. The RC car guys use this one. A large balloon is trimmed of its end and stretched over the devices and secured with a twist tie. A smaller balloon could be used for servos, Stephen G. Denis
sdenis@foxboro.com

**Clove Hitch
With two turns**



ADJUSTING BOWSIES

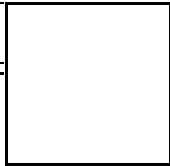
"Bowsie" is the name given by model boaters to part 32, page 2, of the Assembly Instructions. It's the small three-hole black plastic part called an "Adjuster" at the top of page 7.

Example: To tighten a shroud bowsie, grip the string above the bowsie. Then grip the bowsie and move it toward your grip on the string a small amount. A 1/16 inch movement may be all that is required.

To loosen a shroud grip the string below the bowsie (not the one tied to the bowsie) and repeat the above.

Sandpaper helps adjust bowsies

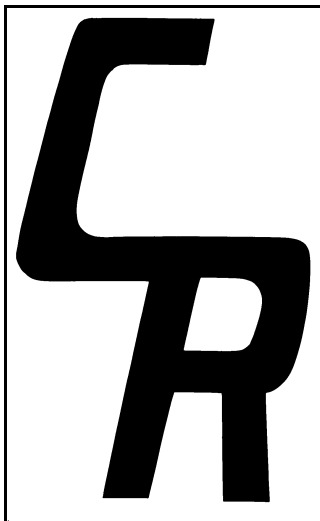
Steve Lang, Thin Air MYC, Evergreen, CO, writes to use sandpaper to adjust bowsies. He couldn't grip the string well enough with bare fingers. Gripping the string using a small piece of folded sandpaper between thumb and forefinger gave him all the grip he needed.



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CR 914 SAIL EMBLEM
Full Scale

**Future articles in the
CR 914 NEWS**

The following is a list of articles that are planned for future 914 News. What will actually appear depends on input from you owners in the form of contributed material and requests for particular information.

- Regatta results
- Fleet news
- Battery management - continuing
- Surviving salt water - continuing
- Racing rules of sailing topics
- Why do radios "glitch"?
- Class Rules Interpretation - continuing
- Maintenance and repair of radio components
- Building and maintenance - continuing
- Scoring systems
- Boat switches
- Conduct of a model race

START YOUR OWN MODEL YACHT CLUB

There are probably some owners who would like to race but don't have a local club. Start your own by getting three AMYA members together. That's all it takes! (Though it helps to have a place to sail such as a pond.) Ask me for a