



PHRF PERSPECTIVE  
May 2003

PHRF Racing: Boat Prep Equals Speed!

Seems like a blessing is usually accompanied by a plague. The blessing that comes with April 15th tax day is that we get our summer back as we switch over to Daylight Savings Time! That means (take your pick) Tuesday, Wednesday, Thursday or even Friday evening Sunset Series, Wet Wednesdays or Beer can racing gets underway.

As you continue to prepare for this season of racing, it's a good idea to upgrade your boat as you maintain her. The top boats are better race prepared and optimized for performance. Speed, smarts and boat handling allow your boat's potential to be equal to her handicap rating. The premise of PHRF rating is that a well-crewed, properly prepared and well raced boat has an equal chance to place in the money. And the preparation of your boat plays a major part in your success and enjoyment. Many of these tips were originally set forth by PHRF Big Boat Advisor Bruce Cooper of Ullman Sails.

**RIG:** Mast tune determines how your sails perform. Check that your rig is straight at the dock and again while sailing. Ask your sailmaker or rigger to check if your mast is tuned, i.e., if your rig has enough prebend and rake, if it is centered, and if it has proper tension. A tuned rig will help your upwind speed and pointing considerably!

Get rid of any unnecessary weight aloft. This greatly helps your boat's righting and pitching moment; it means less heeling and more speed! Use Vectran or Technora halyards. Eliminate bloodstains on your sails since there are no meat hooks with rope halyards! New Vectran line with a polypropylene cover is light, strong and doesn't absorb moisture. If you have older "double channel" sheaves intended for use with wire, you can lighten your load without replacing the sheaves. Splice on a foot & a half of wire and swedge the shackle on! Here are a few more ideas:

- \* Newer ropes are strong enough to lift your boat! Don't try this without a safety net. Now, high-load capable, nearly zero-stretch rope permit downsizing many of your lines.
- \* Have your sailmaker supply two feet of luff tape with cringles for halyard & downhaul to clean headfoil grooves for faster hoists. Spray with McLube or Boshield.
- \* For fast and consistent trimming of the genoa, put 1" tape on the spreaders at 3", 6" and 12" from the outer end to give your trimmer an easy-to-use reference.
- \* Mark your halyards for maximum hoist to add consistency to trimming your sails. Halyard tension is a big part of sail shape and speed.
- \* Make sure your sails, shrouds and backstay have ribbon or yarn telltales and your masthead Windex is aligned.
- \* Your spinnaker pole and spinnaker pole track should be in good working condition. If not, you'll be losing valuable time at every jibe and mark rounding.
- \* Keep your spinnaker pole rigged low on the mast (with the topping-lift pulled aft) so it's pre-set for the mark rounding. Saves time rounding the weather mark!
- \* Remove the roller furling drum for racing and have a full length racing Genoa made.

**SAILS:** The newer cloths are light, stronger and more durable. Consider Carbon and blends. Prices are more reasonable and carbon has advantages over Kevlar and other UV sensitive materials that make it worth seriously considering. For smaller boat Mainsails, Dacron and Dacron blends are less expensive but may need replacement more often. Ask your sail maker what's best for your use. Be sure the sails used most are more recent than the rest. And remember, newer sails equal speed. Period.

For small repairs, use Tedlar, an adhesive backed Mylar that sticks well on dry Mylar surfaces. It comes in various width tapes and sheets. Order some from your sailmaker.

**BOTTOM:** Put the bottom at the top of your list this year. A fast bottom will have less drag, which equals greater speed, acceleration and pointing!

The bottom paint rule for serious racers: pay for it to be done right the first time so you are not paying someone else to fix it. Prepare the bottom correctly so the paint sticks the first time. Stick to the basics: You want a faired and smooth bottom with a proper epoxy barrier coat and a very smooth paint job. Shortcuts equals slow.

Ask winning skippers what yard they use for their bottom and who does the work. You can't argue with success. Unless you have a race-prepared bottom that just needs paint, start by taking off the old bottom paint and barrier coat down to the original gelcoat. New boats from the factory generally do not have race-prepared bottoms.

The barrier coat is sprayed in several coats and long-board sanded to insure any hull or foil imperfections are faired and corrected. Sanding "orange peel" texture away is especially important. If left on, your race bottom paint will go on an uneven surface and lead to a rough, slow bottom. A barrier coat is the key to a successful bottom. It seals the hull from moisture that can lead to blisters or worse.

The fastest bottom paints like Micron or Baltoplate have a harder finish. Check the new Teflon hard paints or consider Proline 1088 is an acceptable fast alternative. Check with the fastest racers to find what they use. Wet-sanding the bottom before it goes in the water polishes the bottom and knocks off any small particles. Use a lighter color or white to help see growth kelp or garbage bags.

If your boat does not have flush thru-hulls, switch to them for a much smoother bottom. Install kelp windows that allow the crew to see kelp on your keel, etc. While hauled, mark the prop shaft inside the boat when the prop is properly feathered or folded. Use a diver if the boat's in the water. It makes alignment easy when heading for the start line!

More ideas: If you are racing with a fixed prop, GET RID OF IT and be sure to immediately notify PHRF to update your certificate! There should be no penalty. A feathering or folding prop eliminates drag and gives your boat instant speed.

\* Use a paint-friendly floss line for removal of kelp, garbage bags, tuna, etc. A polypropylene line knotted every foot or so is cheap and effective.

\* Get the bottom cleaned before each race. It has to be clean to be fast. Hire a bottom diver who knows how to service a race bottom and uses light duty cleaning methods. Good divers know how to preserve a race bottom.

With your sails, rig and bottom in the best shape possible, you're almost ready to go racing. But first, get the crew out to practice. This is a good time to break in your new foredeck person (be sure to practice sail changes and spinnaker peels). Practicing WILL make you faster. Practice your roundings. Practice starts and speed test with a sistership or a similar rated boat. Also, review and learn the racing rules. Then go practice some more.

With your boat a little lighter aloft and faster on the bottom along with a practiced and cohesive crew, you will find that the boat's rating is much easier to sail to.

Please remember to report any reportable changes you make to your boat as specified in the PHRF rules. Ask any PHRF club rep/handicapper if in any doubt about what is a reportable change.

Contact PHRF at 562-438-6712 or by e-mail - [fleetoffice@phrfsocal.org](mailto:fleetoffice@phrfsocal.org)

Jerry Kaye  
Vice President  
So Cal PHRF