

Tips for Sailing Your Boat to it's Rating

PHRF ratings are based on a boat being "Race Ready". This means the bottom is fair, smooth, and above all, clean. Even one or two weeks of growth in July will cause a boat to develop a thin coat of slime that might cost you as much as a quarter of a knot in boat speed. If you have slime and barnacles, figure twice that amount. Do you know what a quarter knot of boat speed is worth? Well in terms of a two-hour race this much speed loss will put an equal boat with a clean bottom about one-half nautical mile *ahead* of you. All the tactics and strategy you can muster up will probably not overcome just this one problem. If there is only one thing you do before a race it must be to clean the bottom. Cleaning your boat's bottom is by far the single most important thing you can do to get your boat ready to compete.

The next biggest factor in boat speed is your sails. They must be strong enough to take the handling and use. Draft must be correctly positioned and sail controls must have enough range and mechanical advantage to allow a full range of adjustment. There are many factors affecting the type and size of sails needed, and trade-offs between speed and longevity. Most of us sail on a budget, so it is best to consult with a sail maker to get your best value.

Frequently overlooked areas include the deck and interior. You can get your boat's performance potential equal to your rating through optimization and preparation. That rating will then be easier to sail to with a lighter boat and a deck layout that makes boat handling easier and faster. The premise of PHRF rating criteria is a well-crewed, well-equipped and well-raced boat has an equal chance to place in the standings as any other boat. The easiest area to optimize is your deck gear layout and interior.

On Deck: The goal is to improve speed and performance by lessening weight in the ends of the boat. Weight increases the pitching moment and causes your boat to "hobby horse" diminishing speed and acceleration. To start your boat on a significant diet, begin at the bow of your boat and, working aft to the stern, make a checklist of items that can be changed, moved (removed) or modified to improve your performance. Many boats have an anchor locker. Don't use it! Remove all ground tackle from the bow and stow it below deck in the center of the boat directly over the keel or as near to it as possible. Check for any cruising gear on deck. If it does not help racing performance remove it. This includes dodger gear, boom cover and cockpit cushions! If your boat has an outboard motor, take it off the stern and put it below. Serious racers wouldn't even think of racing with the outboard hanging out the back! Every boat is guilty of storing "stuff" in the cockpit lockers or below. Put all items of substantial weight in the dock box, or if they mean too much to you, put them in a box below decks next to the anchor gear. Don't be a pack rat; get the ends ultra-light. Next, evaluate your deck gear and determine if you are getting top performance from your winches and sail control systems. The more wind you sail in, the better your

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deck gear needs to be. Many production boats come with undersized winches so upgrade to a more appropriate size if required.

Other performance upgrades are to install adjustable genoa leads and a windward sheeting traveler. When sails need adjusting for optimum trim and speed, the genoa leads and main traveler need to work easily and smoothly. Also installing a spring-loaded boomvang with ample purchase of at least 16:1 to 24:1 will give you an advantage in light air to keep the boom from "hooking" the mainsail leech and eliminate the need for a boom topping lift: Less weight and windage. Lead all halyards and control lines to the cockpit. This will allow sail changes to run more smoothly and makes for easier adjustments with halyard winches and rope/halyard clutches led aft in an organized manner. Usually this type of deck layout reduces the number of winches needed, which means less weight. Proper labeling of halyards and control lines will be user-friendlier. Double-led adjustment lines (vang, cunningham, etc.) can allow adjustment by crew without getting off the rail.

Boat Interior: The first rule to remember is you *cannot* remove weight or items that are *factory specified or installed*. This means you must leave doors, the stove, cushions, the table and the like in the boat because that is the way it came from the factory. The boat was rated with that equipment. Everything else needs to go. If you do remove any "permanent" or factory items, your PHRF certificate instantly becomes invalid. That means you cannot race until a new certificate, acknowledging the modifications, is issued. You must report any modifications to FCSA. We strongly suggest you talk it over with your Club Handicapper before you get out the power saw. You do have control, however, on what you bring on-board. Read the sailing instructions for each race and add only the necessary safety equipment on board. As on deck, remove all the weight from the ends. A little weight in the bow will not counteract weight in the stern; it just causes more "hobby horsing." The ideal spot for weight below is centered and down low, usually over the keel. This encourages better acceleration and more speed. Keep the sail inventory on the floorboards and in an organized manner. If the crew knows where each sail is kept, the next sail change can save you time and speed. Know the tankage of your fuel and water. If you are buoy racing, empty the water tank and drink personal-size bottled water. Leave a few gallons of fuel in the tank. For offshore or overnight races, plan the fuel and water consumption accordingly. Surprisingly, the removing and shifting of gear on deck and below can add up to (if you are a pack rat) perhaps a hundred pounds of weight savings or more. This will translate into instant speed in all wind conditions and on all legs of each race.

Here are a few more tips to make your sailing easier and allow your boat to sail to its rating:

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- ❑ Convert your spinnaker pole foreguy to be "double ended." Lead it down each side of the boat to be cleated and controlled while sailing on either gibe.
- ❑ Place a code flag decal in the cockpit (most underrated piece of equipment on any boat). Don't waste time at the start looking for the code flag book and wondering what bearing, course or mark is being posted.
- ❑ Rig adjustable "tweakers" for your spinnaker sheets amidships on the rail. These will help overall spinnaker control and shaping. It is a good way to keep the guy from bending a lifeline stanchion while on a reach and may eliminate the need for a reaching strut (more gear off the boat and on the dock).
- ❑ Use ratchet blocks for your spinnaker sheets on the rails near the stern and try not to use the winches as often. This will give the trimmer better feel and free up a winch for the next mark rounding.
- ❑ Install rollers on forward stanchions & top lifelines for fast and easy skirting of the genoa foot when tacking.
- ❑ Put a spinnaker bag in the front hatch for launching and dousing. This will free up the cockpit from having the spinnaker interfere with trimming the genoa during the rounding. And it keeps it out of the crew's faces at every leeward mark rounding. Hoist and douse into the forward hatch. It saves time from having to "pack" the spinnaker again. This is a *must* when buoy racing! But you must practice this at first!

Most of these optimizing tips can help you get better performance and speed potential from your boat. And don't forget to practice. Practice is a non-rated item by PHRF. Your boat's rating is based on being prepared according to the above tips. Combined with a little practice, you can be one of the faster boats in your fleet!