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STARTS, STOP HATCHES, BOARD DOWN JIBES AND THE SAFE LEEWARD
POSITION
(or "GET ME TO THE LINE ON TIME")
by Bob Smth

By the above title this may seem more like a garbage collection than racing advice. However, these subjects are so closely related that this article could not be written with the exclusion of any of the title words.

There might be a small contingent of NAC top contenders who really don't need any advice on these subjects, but some of them might do better if they put it all together - even though this article is directed more toward the less experienced skipper.

To begin with, we Day Sailer types are generally saddled with both a handicap and an advantage before we ever leave the dock. The handicap is that in most Yacht Clubs and nearly all regattas, the so-called "hot" classes start ahead of the Day Sailers. This creates the problem of having to sail through them enroute to the finish line. The advantage is that we have an opportunity to make note of the route taken by other class leaders toward the windward mark (assuming a start to weather, of course.)

As you get out close to the course traffic usually gets heavy. At this point it is advisable to just stay clear of other boats and check their heading and speed before you attempt to tack or jibe. Also stay well clear of the starting line and other boats which start ahead of you until your preparatory signal is given. This is a common courtesy which is not always observed. This gives you five minutes; plenty of time to get up on the line and plan your start. By now, you've noticed the spot on the starting line which seemed to appear most favorable to the classes ahead of you. Check it out anyway bearing in mind the route you expect to take to the first mark.

Either one end of the line or the other is always favored – even on a perfectly square line. There are many ways of checking to see which end is favored. Some go head-to-wind midway on the line, in which case the end toward which your boat tends to point is the favored end. I often just cross the line once or twice on each tack close hauled. The end of the line most difficult to fetch is then considered the favored end because it is further to windward. Another way is to run the line from the Committee Boat to the pin and back. The course on which you sail most closely hauled points the direction to the favored end. Everything being equal the leeward mark is the favored end. Generally, however, most race committees deliberately favor the leeward end of the line if for no other reason than to keep the boats off their back (assuming a starboard race.)

There are some exceptions to the above generalizations. In some cases, since only one boat can occupy the favored spot at one time it might be best to start in the middle and go for clear air, especially if you are not confident that you can be the boat with the

avored position. It takes a lot of planning and practice to insure consistently good starts. You should know what you plan to do, and at the same time be flexible enough to change your plans up until about fifteen seconds before the starting signal. By the ten-second mark it is generally wise to get close hauled, pick up full hull speed and stick with the plan you have at that time.

Whenever possible, start your stop watch fifteen minutes before your actual starting time. I've got at least a dozen stop watches in my dresser drawer, none of which will keep exact time with the sweep hand of an electric clock over a fifteen minute time span. Unfortunately there is no commandment which states, "Thou shall not permit stop watches on Race Committee Boats." By setting your watch fifteen minutes before your start you have the opportunity to take two "time hacks" before starting. By noting the variance between your watch and the Committee Boat signals you can easily calculate when your starting signal will be given. Even if your watch is accurate, Heaven only knows with what the Race Committee is using to keep time! Everyone should make a habit of doing this because sooner or later you're going to get into some tough competition where a couple seconds at the start becomes quite critical (but more on this later.)

After your preparatory signal don't be timid about getting up on the line. It's all yours now, and other classes shouldn't interfere. Remember you are racing and subject to Parts IV, V and VI of the racing rules after your preparatory signal. (Actually you are subject to the rules of Part IV from the time you intend to race but can be protested only for violations which occur while racing.) Since you will be in heavy traffic for a while before starting, you had better check out the new rule 67 which is tucked away back in Part VI where nobody reads it. This new rule 67 is reminiscent of a similar rule that was in effect back in 1957 and got lost along the way. It is a good rule, however, and definitely belongs in the rulebook. Also check the minor changes for 1973 in rules 32, 34 and 40.

While maneuvering amongst twenty to forty Day Sailors the only thing you have to worry about is keeping clear of right-of-way boats, and insuring that you have full control of your boat at all times. Bear in mind that if your boat is not moving or moving slowly you have very little, if any, control. Also bear in mind that jibing is quicker than tacking. Hull speed is not reduced by the jibe, and better control is maintained. This is especially true in very light air and in very heavy winds. If you don't normally jibe with the board down, you should start practicing now! Start in light airs and work up gradually to where you don't fear a board down jibe in winds up to 40 MPH. A side benefit to this procedure will always occur at the jibing mark also. Many times I have come to the jibing mark (in both light and heavy winds) close on the heels of a competitor. He jibes, then I jibe. Five seconds later, I find myself five or six boat lengths ahead, and to weather of him merely because he slides side ways for some time and kills hull speed in the process.

Naturally board down jibes introduces (or I should say highly magnifies) a force against the centerboard. However, with practice, this force can be harnessed, controlled and used to your advantage. After a few such hairy jibes in high winds I am now

convinced that it is always safer than jibing with the board up.

When planning your start I firmly believe that **NO MORTAL SAILOR SHOULD EVER DELIBERATELY PLAN A PORT TACK START WHENEVER THE LEEWARD END CAN BE FETCHED ON STARBOARD TACK.** This goes for both salt water and inland lakes. In tough competition your timing would have to be perfect or you'll be cut off by the starboard tack boat that wants to be at the same place at the same time you want to be there.

Lewis Wagoner has successfully planned and executed five or six port tack starts (which I have personally witnessed) in NAC's from coast to coast. His secret is that he has an Acutron tuning fork implanted in brain which splits each second into 360 equal parts. He's coming in at high speed off a port reach. If the leeward starboard tack boat is a full second late to the pin, that's all he needs to shoot through. I have also seen Lewis try it when the starboard boat was only a quarter second late to the pin and he had to duck under several boats, and finally all the boats ending up at the wrong end of the line on the wrong tack and dead last! In all fairness to Lew I suppose I should mention that he won that particular race - but no thanks to the miserable start.

The great advantage of starting on starboard tack at the leeward end (on any decent starting line) is that you always have the safe leeward position, and you are the only boat able to take full advantage of it. You may recall Bernoulli's Principle from your school days which states,

"The pressure of a fluid (Liquid or gas) decreases at points where the speed of the fluid increases."

The Force driving your boat on a beat is based on this principle. Your sails form an airfoil shape when you have just enough wind on the weather side to fill the sail. The wind flow over the contoured leeward side must, therefore, flow faster in order to travel the longer route around the sail. This wind deflection starts several feet ahead of any airfoil it encounters.

Therefore, as leeward boat in safe lee position the airflows over the leeward side of your sails unmolested. In addition, the deflection caused by the boat to weather of you increases wind speed even further and wind direction a few degrees allowing you to point higher than the windward boat. At the same time, the backwind off your sails utterly destroys the orderly flow of air on the leeward side of the windward boat's sails.

Suddenly you find yourself shooting out ahead. Within seconds it is generally possible to tack on to port (If you so desire) and cross in front of the entire fleet. This not just a matter of theory, I generally always use this method and have often tacked within ten seconds after starting. You must remember, however, that while you have the stronger winds due to your safe leeward position, you must hike out more than the other fellow to keep your boat relatively flat. If you let it heel more than normal under the existing conditions you will lose hull speed, and will have blown the whole deal.

Another advantage of starting at the leeward end is that if you get to the line early you can quickly jibe around the pin and get off rather lightly.

If the Race Committee goofs or a wind shift occurs that causes the weather end of the line to be favored, I generally prefer to start somewhere in the middle of the line. Under these conditions you always have the inexperienced skippers barging around the Committee Boat and the majority of the more experienced skippers cutting them down. Your chances of getting a good start at the Committee Boat are practically nil.

On any start be sure your timing is such that you have full boat speed when you hit the line. Otherwise you will get backwinded by the entire fleet and it may be some time before you can find some clear air to sail in.

Knowing how you should start under a given set of conditions, and not planning to start in accordance with your convictions is like chipping up with a six iron from a hundred yards out, hoping the ball will roll between the traps and up on the green. You know you should use a nine iron, drop the ball just in front of the pin, let it hop one time and draw it back toward the cup.

It's all a matter of practice and building confidence in your own ability to properly use all the tools and tactics at your disposal.