

# The Leading Edge

By Hal Smith

*This is the fifth in a series of articles, "How to Begin Sailboat Racing for Fun and Personal Growth," by Hal Smith, a former Catalina 22 National Champion.*

## Upwind - The Second Time

**A**round the leeward mark, and now it is just you and a few other boats. Oh, what a feeling! What used to look impossible now seems to be easy, and the temptation is to get greedy and try to beat everybody. If you begin to celebrate now, you will likely have nothing to celebrate later. If you get too greedy, you will likely lose what you have. But, you can improve by concentrating on gaining little bits at a time.

Strategy for the weather leg emphasizes maintaining clear air and playing the major wind shifts and current differences. Except as obstacles, other boats are almost ignored until you approach the weather mark. Strategy for the second weather leg shifts the emphasis to tactics based on the behavior of the nearby boats. The purpose of the first weather leg is to give you a chance to separate yourself from most of the fleet by being more observant about the changes in conditions and maintaining top boatspeed. On the second weather leg, you must begin to engage in direct combat with the boats which are lucky enough to be where you are.

The most obvious difference between the first and second weather legs is that, the second time, a lot fewer boats are around you. Also important, there is much less course left to sail. Less time remains for dramatic events such as major wind changes, gear failure, fouls, etc., to alter the odds of the outcome.

You will begin to realize that the boats ahead of you are so aware of you that you control their actions. They should try to stay between you and the next mark, covering you, thereby staying ahead of you. They will not want you going to one side and getting a big lift while they get headed on the opposite side of the course. You should be similarly concerned about the boats behind you.

The wind has a habit of shifting a few degrees in one direction over the course of the day. If you can detect that the median wind has moved to one side, you should work to that side. If you are sure of a persistent shift which will progress during the whole leg, work toward it first and

away during the balance of the leg. In any case, try to get to which ever side of the leading boats will give you the chance to sail a new or lifted wind longer.

On the second weather leg, it is risky to depend on a persistent shift. Working brief shifts to your advantage pays better dividends. Use the boats ahead to give you a clue of a coming shift and help you time your tack. Think about what you would like to do if the other boats were not there, and begin to use tactics which let you sail your chosen course but encourages the competitors to sail disadvantaged conditions. Do not let the boats you're trying to beat get too far away, however.

If you know you want to sail up the right side, go that way and see if the others begin to cover; that is, head to the right of the course ahead of you. Even if all of you are left of the rhumbline but you are to the right of the other boats, you have obtained your slight advantage.

When the other boats have gone as far as you want them to go, dig back in, and get them headed the other way. You should carefully watch each tacking situation to make it an opportunity for gain for you. If a slight header is coming down, the lead boats will likely get it first. You watch, you wait, and you tack when you can benefit from the new wind, but after the lead boats have sailed headed for a few minutes to cover you.

Once you are crossing tacks with the boats you are chasing, you can force them to sail headers while you are on a lift. If a header is setting in on starboard as you approach a port tack boat, be sure the other boat tacks before you tack to the lifted tack. On the other hand, if you are on starboard and are lifted, invite the port tack boat to pass while you duck his stern. That keeps him on the disadvantaged tack. It is simple to use the right-of-way rules to encourage the other boats to go the wrong way.

Knowing when to tack from a header to a lift can make many boat lengths of difference. First, you must know what the median (average) wind direction is. If, for instance, the median wind is from due

south, 180 degrees, and you are on starboard tack, a lift will come from 181 degrees and above. If your wind lifts from 180 to 190 degrees, what do you do if the wind then backs to 185 degrees? You have just been headed from your 190 degree lifted tack, but you are still lifted relative to the 180 degree median wind. The answer is, that you continue to sail the lifted tack even if it is backing, until it backs past the median wind of 180 degrees. This is why it is important to know what the median wind is before the race starts and to monitor any persistent shift during the race.

By concentrating on working your way up the middle and playing small lifts and headers, you will constantly be improving your position relative to the other boats while being ready to go after any major shift or new wind which may occur to either side. Avoid the laylines until the last ten or so boat lengths. The mark will not be crowded, you will have clear air, and you will not get stuck having overstayed the mark by several boat lengths due to a last minute wind shift.

Since you will be doing a lot of tacking on this leg, do not forget that you have two gears. You have a power gear to use after having slowed down from going through a tack. This is also useful when you encounter chop, as you might have from a nearby passing boat. Your second, or high gear, is for speed on relatively smooth water. Steering is more critical in high gear, but you will be pointing higher and going faster.

## Power Gear

**Genoa** - sheet 6-8" off the spreader; move the genoa car 2-4" forward; relax the backstay to allow 2-4" extra headstay sag; maybe add a little halyard tension.

**Main** - let the traveler down 4-6"; slightly relax the outhaul; make sure the vang is set to prevent too much twist (keep all telltales flying).

## High Gear

**Genoa** - sheet 2" off the spreader; set genoa car for proper twist (all telltales flying); add backstay tension to reduce fullness in the middle of the luff; add just enough halyard tension to remove the wrinkles.

**Main** - move the traveler all the way to weather; tighten the outhaul; add enough cunningham to remove the wrinkles.

Now you are blasting along, about to pass one more boat just before the weather mark rounding, thinking you are in total control. Next is the dreaded downwind leg. Better wait till next time.

*Questions? Write Hal Smith, 101 Deerwood, Easley, SC 29640.*