

The Leading Edge

Upwind — To The Weather Mark

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

You have just started the first weather leg. Boats are all around you, some ahead and some behind you. Now where do you go so they all do not finish ahead of you?

At this point, you discover that your boatspeed is less than some and maybe equal to others, but you will not improve it this day. Your sails, bottom condition, and trimming skills are fixed for today. Your only chance to beat these guys rests in the answer to the above question, "where to go?" The trouble is that you did not ask it soon enough.

Strategy preparation must begin before the race starts. During the first weather leg, the strategy design may almost ignore the presence of other boats. At the race's beginning, other boats only represent obstacles to be avoided; whereas, later in the race, their actions will become important to your strategic decisions.

What is meant by strategy is almost as simple as the choice of left or right. Making this decision is based on the following:

1. Wind direction: It is a given that the wind will shift. You will either:

a. Have an idea of the general direction the wind will shift over the day. In this case, always work up the side of the course to which the wind is expected to shift; i.e., go right first if the wind is expected to generally veer right.

b. Have no idea of a wind shift direction. In this case, go right early, but not too far to the right of the fleet. You will avoid total disaster if the wind shifts left, but you will spend more time on starboard tack as the boats converge at the mark.

Have you noticed how many people start on starboard and sail to the left? This leaves clear air and maneuverability to the middle and right.

2. Wind speed: Wind also changes in speed. New wind is almost always stronger. Sail toward it.

3. Geography: A point of land, an island, the traffic lanes of other non-racing boats, anchored boats, etc., may

all reduced your maneuverability and/or slow you down. Avoid them. Land masses will predictably deflect wind and can create a thermal breeze, so a potential advantage may exist nearby.

4. Current: Obviously, the least adverse current is what you should seek.

5. Waves: Smooth water offers much less resistance to the hull's forward motion and permits greater sail shape efficiency with less pitching. If you do not give up too much wind or encounter increased adverse current, this is the place to be.

Now that you have selected your direction, choose your starting location accordingly. A boat length or two lost at the starting line is more than made up for if you sail the course of your choice. Maintaining clear air and maneuverability is important here. Going left or right really means "working" left or right, so expect to make plenty of tacks taking advantage of short wind shifts, avoiding boats, etc.

Windward strategy rules of thumb:

1. Sail toward a persistent shift early and use it to carry you to the mark late.

2. Avoid extreme sides and keep off the laylines.

3. Sail toward new wind.

4. Stay on the tack that takes you closer to the mark.

5. Tack on headers.

6. Cross other boats when you can.

Usually some other boats will recog-

nize the wisdom of your strategy and be headed there with you. This is where boatspeed is important. Remember that you have a power gear and a fast gear.

1. Power Gear: The main and genoa are eased several inches outboard. Steering is two to five degrees below close-hauled. This trim provides acceleration and power. Use the power gear going in and out of maneuvers, in chop, in difficult current, in wind shadows, etc. Be careful not to over steer in these situations, as the rudder drag can slow you significantly.

2. Fast Gear: The main and genoa are trimmed in tight, and the boat is pointed high. The boom is on the boat's centerline, and the genoa is almost backwinding the main. This is the highest speed mode but is a delicate balance to maintain. Rudder movements must be minimal, and the boat's motion must be steady.

Put wind telltales at the aft end of each pocket of the mainsail, and 8 inches behind the luff of the genoa at points about one-fourth, one-half, and three-fourths the distance from the tack. When these are streaming freely, your trim, twist, and fullness are probably right. Adjust the sails in practice sessions to feel the differences.

Now that you are at the weather mark in the top 10%, the first reaching leg needs to be planned. But we will save that for next time.

TRIM NOTES:

Wind Speed	Mainsail Trim	Genoa Trim	Other
0-8	<ol style="list-style-type: none"> 1. Traveler to weather. 2. Sail shape-flat to medium full. 3. Generous twist. 4. Luff loose. 	<ol style="list-style-type: none"> 1. Sheet inboard to coaming but loose trim. 2. Loose luff but no wrinkles. 3. Generous twist. 	<ol style="list-style-type: none"> 1. Loose backstay and headstay. 2. Heel leeward. 3. Minimize steering and boat motion.
8-15	<ol style="list-style-type: none"> 1. Traveler to weather. 2. Sail shape-medium full. 3. Some twist. 4. Some luff tension. 5. Some vang tension. 	<ol style="list-style-type: none"> 1. Sheet inboard to coaming rather tight. 2. Firm luff tension. 3. Some twist. 	<ol style="list-style-type: none"> 1. Tight backstay and headstay. 2. Allow maximum 20° of heel. 3. A little weather helm pressure is OK.
15-25	<ol style="list-style-type: none"> 1. Traveler amidships. 2. Sail shape-flat. 3. Minimal twist. 4. More luff tension. 5. Vang very hard. 	<ol style="list-style-type: none"> 1. Sheet outboard tight. 2. Very firm luff tension. 3. Minimal twist. 	<ol style="list-style-type: none"> 1. Very tight backstay and headstay. 2. Minimal heel. 3. Keep weather helm reduced by easing main traveler or sheet.