

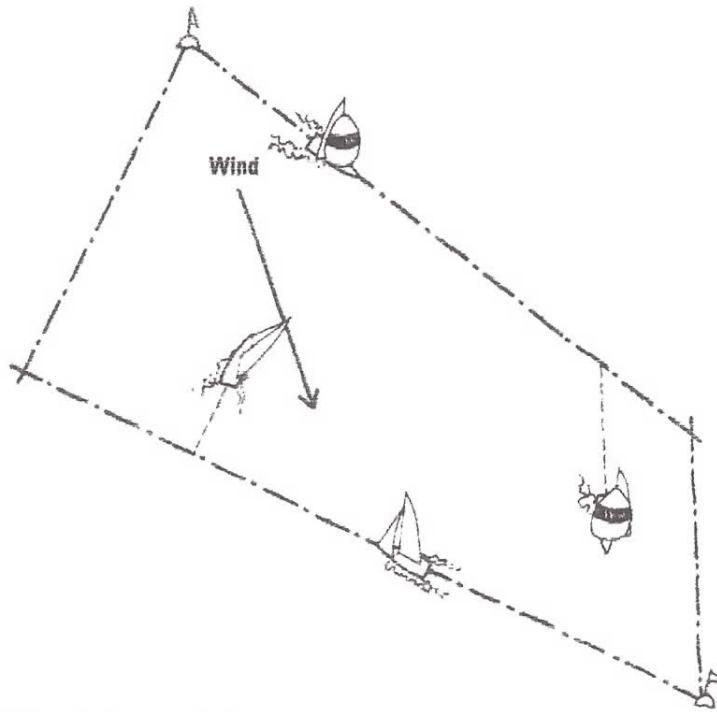
Going for It Downwind: The Run

A GOOD SQUARE RUN is the one time the guys behind have all the advantages. For the same reasons that it's cake for the boats ahead on the beat, the boats behind have it all their way on the run. They get the puffs and the shifts first, they have the power of suffocation with their wind shadows, and they can attack while looking forward, riding the waves, and concentrating on boatspeed.

Unfortunately, by the time many people get to the run, the Evereadys are running down, and that old killer instinct has punched out for the day. But a lot can happen on the runs if you go after it aggressively and make it happen. When you round that weather mark, get psyched to attack and grab every inch possible. Let's look at some of the ways to do it.

First, you have to know your boat. When racing downwind, there is an optimal sailing angle for every kind of boat and for every wind and wave condition. Think of racing upwind where the game is to try continually to sail as close to the wind as possible without losing speed. The same principle applies downwind, except that you want to continually sail as far away from the wind as possible, without losing speed. But because most boats don't sail optimally dead downwind, they have to jibe to get to the leeward mark. As a result, the leeward mark has two laylines just as the windward mark does.

Imagine you are hovering over the race course looking down at the run leg. A boat whose optimal downwind sailing angle is 15 degrees above dead downwind rounds the weather mark on starboard tack. The wind is due north, so dead downwind is the reciprocal, or south. The boat bears away to 195 degrees. The question is, assuming the wind and everything else stays the same, what should the leeward mark bear, so that when the boat does jibe she



If the wind is steady, but the leeward mark is not directly downwind of the windward mark, A will have to sail longer on one tack going upwind, and longer on the opposite tack going downwind. In general, she should sail the longer tack first, both upwind and down, and never sail out to the laylines too soon.

can continue to sail her optimal downwind angle all the way to the mark? Just subtract 30 degrees (15 down to dead downwind for the jibe, and 15 up on the other side) to get 165 on port. So, when the leeward mark bears 165, she should jibe. This new course is the layline to the leeward mark. If she had jibed sooner, she would have either had to jibe back again to get to the mark or sail below her optimal downwind sailing angle, which is like tacking short of the windward mark layline and having to pinch to get up to it. If she had gone farther than the layline, she would have sailed extra distance, and though she would have had a higher reaching angle and more speed – just as when you overstand the weather mark and come footing in – the increased speed wouldn't be enough to make up for the greater distance sailed. As for strategy, the same

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general rule applies as upwind: don't get to the laylines too soon. Jibe early and get close to the mark before making your final approach.

Furthermore, it should be remembered that if the wind is steady and you spent three quarters of your time on starboard tack going upwind, then you can expect to spend three quarters of your time on port going back down to the leeward mark. As a general strategy it's always better to sail your longer tack first. This reduces the chance that you'll sail extra distance on the short tack, and gets you going toward the mark in case something happens down the leg (see diagram previous page).

OTHER CONSIDERATIONS for picking a favored side of the run (and for now we'll keep the wind direction steady) are similar to those for picking a favored side upwind – e.g., does one side have more wind, bigger waves to ride, better current etc.? (You should know the answers to these questions before you start the leg.) Two thoughts on current: first, the current will change your laylines; and second, if the current is flowing across the run, as a general rule it pays to go up-current first (as you'll probably be on that tack longer, it is the same principle as sailing your longer tack first).

Now, let's see how windshifts affect our race downwind. If the wind is due north, the leeward mark set perfectly due south of the windward mark, and your boat's optimal downwind sailing angle is 15 degrees above dead downwind, then on starboard tack you'll be heading 195. The question is, if the wind shifts 10 degrees to the left (backs), which way can you now alter your course to maintain your optimal 15-degree sailing angle? You're on starboard and the wind moves left, so it moves forward on your sailplan. Therefore, you can bear away 10 degrees, and instead of sailing 15 degrees above the leeward mark, you're now only 5 degrees above it. Was this shift a lift or a header? Just picture yourself going upwind: lifts allow you to sail closer to the windward mark, and downwind, headers allow you to sail closer to the leeward mark. That's why they say: upwind, tack off the headers to get on the lifts; and downwind, jibe off the lifts to get on the headers.

Now though this seems straightforward on paper, very few people seem to use this strategy on the runs. If the wind was shifting while going upwind, it's still shifting just as much going down. And if you figure that most boats

lose less speed when they jibe than when they tack, logically speaking you should be jibing on the shifts at least as often downwind as you tacked on them upwind. But the problem is that it's harder to detect a small windshift going downwind than up. However, if you work at it, you can become just as sensitive. One way is to carefully watch the telltale on the shroud. Once you feel you're on your optimal downwind sailing angle, notice the angle at which your telltale is pointing. At the same time be sure that whoever is driving doesn't wander all over the place. (The compass, leeward mark, and land are all good references for steering.) Then if your course hasn't changed, and the telltale is showing the wind more aft than before, you're being lifted. Your instant reaction should be to head up and reestablish the optimal downwind sailing angle before the boat loses speed. Immediately afterward, you should jibe on this lift if at all possible.

Another excellent indicator of small windshifts is a sensitive and talented spinnaker trimmer. The spinnaker trimmer's goal is to continually try to trim the chute out from behind the main, while still keeping the optimal shape. If the boat's course doesn't change, and the trimmer reports that the chute can be trimmed more out to weather, then the wind has gone aft, and is a lift.

Another indicator of a shift is the other boats around you. If you are six boat-lengths behind another boat, sailing a parallel course, and aiming at their transoms, and one minute later you are still on parallel courses, but now you are steering a course which would bring you five boat-lengths to leeward of the boat ahead, both boats have been headed. As for positioning, boats to leeward and astern gain in headers boats to windward and ahead gain in lifts, if they jibe (see diagram).

So on the run you want to sail on the headers as much as possible. A great way to get off on the right jibe and in rhythm is to quickly resail the last beat in your mind as you approach the windward mark. How often has the wind shifted, how big have the shifts been, and is there a pattern? Then notice if you're rounding the mark in a header or a lift. If it's a lift, try to jibe as soon as tactically possible. You know you're right if you are always on the jibe taking you closer to the mark.

Now, with an understanding of windshifts, the laylines, and general geometry of the leg, let's fill up the run with other boats and see what sort of

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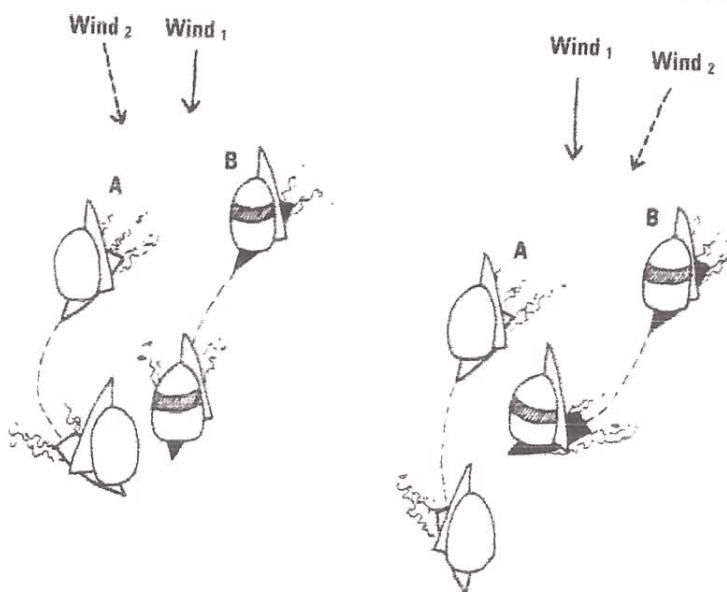


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If A and B are on starboard and B is to leeward and astern of A, B will gain in a header and lose in a lift, assuming in each case that A jibes, putting the two boats on converging courses.

arsenal of tactics we have to attack and defend with. It all starts at the windward mark. If you want to go right initially, there's no problem. If there are boats directly astern you may want to head a little high for a boat-length, so as not to plant yourself in their wind shadows.

If you want to go left, it's a bit trickier. If there are a lot of boats on the starboard layline, it may be wiser to hold off on your jibe for ten lengths or so, so as not to jibe into a vacuum. If you want to go left and there are boats directly astern, be sure to bear off hard, even to the point of letting them overlap you to weather. If not, they may overlap you to leeward, securely preventing you from jibing. Also, with marks to port and all other factors near even, it pays to go on port first. You're off into clear air and water, away from the pack, and you return to the leeward mark both on starboard and on the inside.

Now, any time you want to attack another boat, position yourself so you are directly in line with their apparent wind (i.e., you should be directly in line with their masthead fly or telltales). Your shadow is effective both psycho-

logically and realistically from as much as five to eight boat-lengths back, depending on the breeze and type of boats. If they head up to escape, head up with them; if they try to jibe away, be ready to jibe faster to get back into position. Follow your shadow down till you're right in behind them.

Now, if you are the boat ahead, check which way your telltale is streaming, then sight back in the opposite direction to see if anyone's on your air. Always sail in channels of clear air. Sometimes it's a simple matter of working up or down a bit; other times you'll have to jibe. If a boat is getting near your air, react quickly before they can get it. Often they aren't after it intentionally, and if they are and you give them a fight early on, they'll often let you go.

If marks are to be rounded to port and you are on starboard, successfully blanketing the boat ahead and about to catch them, you have to decide which side to overlap them on. If you overlap close to windward you are likely to get luffed hard. If you overlap with some distance to windward you still have to pull ahead, jibe to port, and cross them, which is very difficult. So it's best to overlap them to leeward. If you make the mark on starboard, you're on the inside, entitled to room. If you'll both have to jibe, then you can force them beyond the layline by waiting till you're securely there, jibe, and approach the leeward mark as both windward and inside boat.

If you're both on port, it's a bit trickier. If you overlap them to leeward you gain nothing – they are inside at the mark and can jibe to starboard at will. If you overlap them to windward, you'll probably get the luff of your life. The game here is to blanket them, but don't overlap them within a boat-length. This makes it nearly impossible for them to luff you. Then either they'll try to escape from your shadow by jibing, in which case you jibe so you're both on starboard and you're on the inside; or you can pull up to windward of them bow to bow on port, then jibe to starboard yourself, giving them time to respond to your new right-of-way position (rule 15). They'll most likely jibe to starboard to keep clear, giving you the controlling inside position.

If the boats are converging on opposite jibes, the boat on port should cross the stern of the boat on starboard and then jibe in for the controlling inside position. Conversely, the boat on starboard should jibe back to port

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Once you are conversant with the geometry of the run, the use of wind-shifts, the effectiveness of wind shadows, and the fundamental boat-to-boat tactics, the run becomes a fascinating collage of opportunities. For instance, you have the simple ability to plant a boat ahead in the perfect blanketing position on a boat farther ahead by forcing the first boat up and down to escape your wind shadow. If you find yourself on the outside of a group of starboard tackers, you can quickly slow up, jibe across their transoms, and jibe back on their inside before they even have a chance to react. If you're on a lift and about to jibe, look to see if there isn't a boat ahead you can tag with your shadow on the new jibe, just to slow them up a bit or force them to jibe out of phase. And you always have the challenge to be sailing in clear air, and not to get pinned in a position where another boat is controlling you.

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