



## Salvage a respectable finish

When you're competing in a sailboat race, things don't always go according to plan. Once in a while you have a bad start or miss a big shift, and suddenly you find yourself in the middle or the back of the fleet. Your strategic plan quickly shifts from playing a favored side to playing catch-up.

There are many things you can and should do to avoid the kind of problems described above. Most of these are explained in past editions of *Speed & Smarts*. This issue is all about how to make a comeback. It assumes you are already in a bad position and describes how you can fight back to a respectable finish using psychology, strategy, tactics, speed and teamwork.

I think of a "comeback" as the act of recovering from a place in the fleet where you don't normally expect to be. For example, if you cross the starting line early and have to go back to restart behind

the entire fleet, you definitely need to think in terms of making a big comeback. You might actually shift into "comeback mode" at any point during a race – this depends on where you stand relative to your expectations for how you will finish.

One thing that's common to all sailors making comebacks is that they are not happy with their current position in the race. They are looking ahead and trying to figure out how to catch boats, rather than looking behind and trying to defend their position. They desperately want to improve their race score and believe there is a reasonable chance they can pass quite a few of the boats in front of them.

Of course, many comebacks are measured by how many boats you

**"Never, never give up."**

– Winston Churchill

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can pass, but that is not always the case. In a handicap fleet, your main goal is saving time, not catching boats. Even in a one-design fleet, a good portion of your comeback effort is normally spent closing the gap with the boats ahead rather than actually passing them.

A final note before you turn the page: Although the theme of this issue is making a comeback, most techniques described inside will work even if you normally find yourself in the middle of the fleet. They will help any sailors who are trying not to get lost amidst the rest of their competition. •

### ISSUE #105

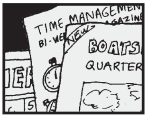
#### Make a comeback!

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When you find yourself behind where you expect or need to be, work your way back through the fleet by picking off one boat at a time. Follow your strategy, minimize mistakes and stay in control of your race.



JH Peterson photo



# The psychology of playing 'catch-up'

Sailing is quite a mental game. Few other sports place such a high value on sharp analytical thinking, so it is surprising that racing sailors don't focus more on psychological training. A sailor can have the fastest boat in the world, for example, but this won't help much if they are "psyched out."

Nowhere is this more evident than when something goes wrong on the race course. It's difficult enough to remain focused while things are going well, but when you suddenly find yourself doing much worse in the race than expected, you may need to concentrate on a psychological comeback as well as a physical one.

**Try your best.** You can never ask more of yourself than to do the best you possibly can. So when things don't go so well and you start blaming yourself or feel like you aren't a very good sailor, focus on doing everything as well as you can. Try to hit every shift, make awesome tacks, go faster than the boats around you and have perfect spinnaker handling.

**Think positively.** When the going gets a little rough, it's not unusual to feel hopeless at first.

But you have to fight against this feeling. It may be unrealistic to win the race, but it's almost always possible to do a lot of catching up. Aim for this positive outcome.

**Celebrate small successes.** Sometimes when you're back in the pack there are not a lot of good things happening. That's when you need to look hard for any small things to feel good about. Maybe you gained a little distance on a boat ahead or had a great jibe. Acknowledge any progress you see.

**Focus on your strengths.** If your sudden trip to the back of the fleet makes you doubt your ability to surmount a comeback, focus on things that you normally do well. It may be that you are very fast, good at boathandling, or tactically smart. Use these skills to help build your confidence and to get yourself back in the race.

**Remember past successes.** You have undoubtedly faced similar challenges in the past and had at least some success. These experiences may give you hope and some ideas about how to handle the current situation.

**Break the race into pieces.** It may be overly intimidating to think

about the huge comeback you need to make. In that case, divide the race into smaller segments and try to make a mini-comeback in each. For example, you might set a goal of passing 3 boats on the next leg.

**Have fun!** Think about all the things you enjoy while racing. The feel of wind on your face, the power of the boat sailing upwind, and so on. By focusing on the present you will get your mind off past mistakes and you will . . . have fun!

Not all these techniques will work for everyone and it's probably impossible to do all these things at once, so pick a few that make the most sense for you. Just remember that mistakes are inevitable, but what sets the good sailors apart is how well they are able to recover from them. •

"Forget mistakes. Forget failure. Forget everything except what you're going to do now and do it."

– Will Durant, philosopher



JH Peterson photo

For at least several of these boats, it's already time to implement Plan B, both tactically and mentally. Getting a bad start is the most common reason why boats have to make a comeback. When this happens, you need to switch gears as soon as possible. Which way will you go and how can you get a lane of clear air? Even more importantly, how can you maintain the attitude that is needed to perform your best for the rest of the race?

## Things you should not do

When your position in the race suddenly takes a turn for the worse, try to avoid certain behaviors:

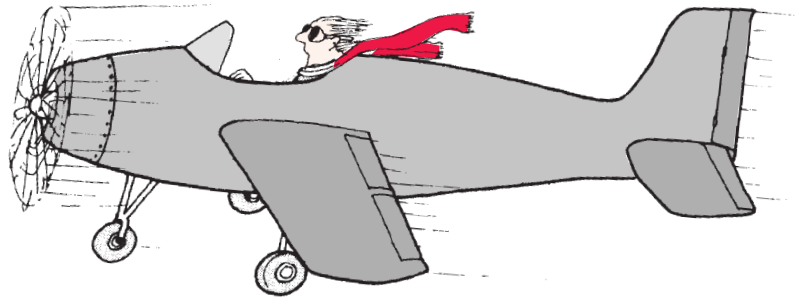
- **Don't make excuses** (either to yourself or anyone else). It might be helpful to figure out what happened (so you can avoid making the same mistake again). But don't look for any excuse to stay where you are in the fleet, and don't waste energy on this kind of thinking while you try to make a comeback.

- **Don't blame your crew, yourself or your competitors.** Everyone makes mistakes, but blame will not help you catch up. If the error was yours, it's OK to say "My bad" and acknowledge this to the rest of the team. Otherwise forget what happened, at least until after the race.

- **Don't dwell on what happened.** If you want to get back in the race, it's much more important to think about the present and the future than to worry about the past.

- **Don't plan to use this race as your throwout.** On the contrary, work hard to catch up enough so it will be a 'keeper.' You might end up using this score as your discard, but worry about that after the race.

- **Don't give up.** Keep pushing and resolve to come back as much as possible. Even if you aren't able to pass many boats, you can learn valuable lessons about sailing (and life) if you keep trying your hardest.



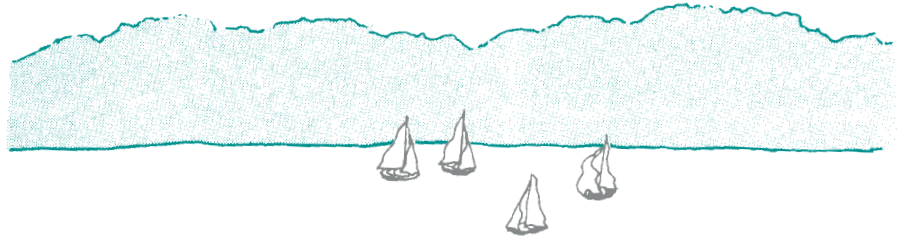
## Drop in and go to the rescue!

One of the toughest things about making a comeback is getting over the fact that you are suddenly and unexpectedly way behind the leaders, most likely because you made a stupid and costly mistake. It's hard to be enthusiastic and try your hardest when you just gave away many boatlengths and now you're sailing the wrong way to find clear air.

But here's another way to think of it. What if you were watching the fleet from an airplane, and you got a phone call from a boat that made an error and is now near the back. They want you to drop into their boat and help get them out of trouble. Would you be willing to do it?

Sure, you probably would. It's a lot easier, mentally, when the problem was created by someone else. Now you can come to the rescue and help them make a comeback. What a challenge to see how many boats you could catch by the end of the race!

Two very similar situations, but completely different mental outlooks. I don't think anyone would disagree that the second attitude has a better chance of success. Therefore, when you suddenly fall behind and need a comeback, imagine that you just dropped in from your plane to help solve a problem that someone else created!



## SPEED&Smarts™

# #105

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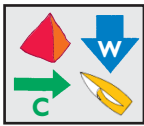
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## IQ TEST Answers

Here are the answers to the *Racing Rules IQ Test* on pages 9 to 12 of this issue. Each answer will be explained in more detail in the next issue (#106).

1. False 2. False 3. False 4. False 5. True 6. True 7. False  
8. True 9. True 10. False 11. True 12. False 13. False  
14. True 15. False 16. False 17. False 18. True 19. False  
20. True 21. False 22. True 23. True 24. True 25. False  
26. False 27. False 28. True 29. False 30. True 31. False  
32. False 33. True 34. False 35. True 36. True 37. False  
38. True 39. True 40. False 41. False 42. False 43. False  
44. True 45. True 46. True 47. False 48. False 49. True  
50. True 51. False 52. False 53. False 54. False 55. True  
56. True 57. A 58. D 59. C 60. D 61. M 62. P 63. W  
64. P 65. W 66. P 67. W 68. W 69. M 70. M 71. M 72.  
M 73. W 74. P 75. True 76. More info 77. True 78. More  
info 79. False 80. True 81. 3 82. D 83. 2 84. D 85. D  
86. 1 87. 2 88. True 89. False 90. More info 91. 19 92. N  
93. N 94. 19 95. 18 96. 19 97. 19 (and 20) 98. 19 99. 19  
100. 19 Your score: \_\_\_\_\_ out of 100



# Shift into 'comeback' mode

When your position in the race suddenly takes a nose dive, it's time to re-focus your gameplan. Don't discard your well-planned strategy (see below), but consider making a few adjustments.

**Take a deep breath.** Before you follow a knee-jerk reaction (which seldom works), pause for a moment and assess your situation. Think about questions like:

- Is it early or late in the series?
- Do you already have a throwout?
- How good is your boatspeed?
- How confident are you in your pre-start strategic plan?

The answers will tell you a lot about how much risk you are willing to take in order to improve your position in the race. If you already have a bad race as your throwout, for example, you can't risk getting another one.

**Evaluate your risk tolerance.**

At any moment in a race, especially when you are back in the pack, you

must decide how much risk to take. Are you willing, for example, to go on a flier out to one corner? This will give you lots of leverage to catch up, but it also increases your chances of falling farther behind.

When it's relatively early in a race or series, you should generally take fewer risks. Try to sail fast, use smart boat-on-boat tactics and choose strategic options that have

a high probability of success.

As you get closer to the finish (of a race or series), however, it's a different story. That's when you can (and should) consider taking larger risks to get the points you need.

For example, let's say you are sailing up the windward leg. Most of the fleet is going left, and you figure there is about a 1 in 3 (33%) chance the right side will pay off. Those odds are probably not high enough to go there on the first beat, but if you're still doing poorly on the last beat, you might roll the dice and give that side a try.

**Minimize mistakes.** Avoiding errors is a good idea no matter where you are in the race. But it's especially important when you're behind. At the front of the fleet, the boats are farther apart. So if you take a chance that doesn't work, the cost is not so great. But when you're fighting with other boats you don't have the same safety net.

"Nobody trips over mountains. It is the small pebble that causes you to stumble. Pass all the pebbles in your path and you will find you have crossed the mountain."

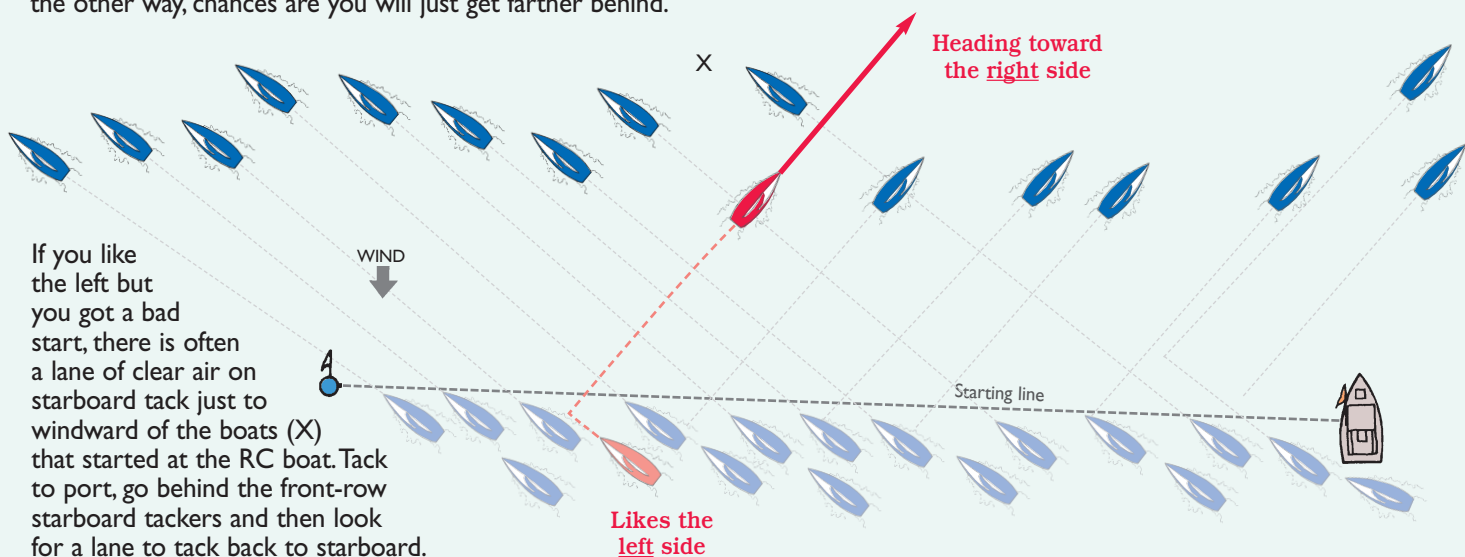
- Author unknown

## Don't throw away your game plan!

Racing sailors often spend a long time before the start collecting info about the wind and current and figuring out which side of the first beat is favored. But if they get a bad start they often seem very willing to discard all their planning and head toward the other side of the course. This doesn't usually make sense. Unless something changes, the side that was favored before the start should still be favored afterward; if you go the other way, chances are you will just get farther behind.

**'Change horses'?** If your pre-start plan said go left, you might consider going right when:

- You had only a slight preference for the left;
- Going right is the only way to get clear air (but it's a bad sign, and a risky strategy, if everyone else is going the other way); or
- Conditions changed after the pre-start.



The best comeback strategy is usually to minimize the number of mistakes you make. First of all, don't go for an impulsive reaction when you fall behind – instead, be patient and thoughtful about your options. Avoid taking big chances, and be ready to pass the boats ahead when they make errors.

**Keep the big picture in mind.**

Remember your goal is to catch as many boats (or gain as much time) as you can before the finish, so don't get obsessed with just one or two other boats. That is, don't lose sight of the forest for the trees.

Especially when it's early in the race, making up distance may be more important than gaining places. On a reach, for example, it's often better to stay in 15th place and gain distance on the leaders than to go high and pass a boat or two but lose distance to every other boat ahead.

In most situations, it's not possible to make up your deficit all at once. Sure, we occasionally hear stories where someone bangs the corner and goes from 20th to first. But that is the exception rather than the rule.

It's generally better to be conservative and methodical, picking up one or two boats at a time. This approach means you go for a lot of small high-probability gains rather than one large low-probability gain. In other words, be like the tortoise instead of the hare.

**Focus on strategy or tactics?**

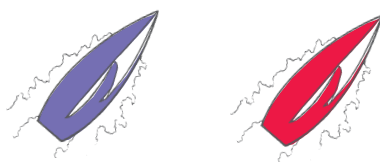
When you are playing catch up, another choice you must make is whether to focus on strategy (wind shifts) or tactics (other boats). Both are important, but the relative balance depends on where you are in the race. If it's just after the start, for example, don't worry about one or two other boats. Play your best strategic cards to gain distance on the entire fleet.

As you get closer to the finish, however, the boats are more spread out and you don't have time to make large strategic gains. That's when you should shift into tactical mode and make sure you beat all the boats around you. •



JH Peterson photo

**When you're back in the pack, you may have to make compromises. If you try to play the windshifts perfectly, for example, you normally increase the chances that other boats will tack on you. You need a balance between playing the shifts exactly right and spending more time sailing in clear air.**



**The boatspeed factor**

When you're making a comeback, it's obviously important to be going as fast as possible (see page 13). But it's not so clear how speed will affect your strategy. For example, if you are fairly fast, should you take more risks or fewer risks when trying to catch up?

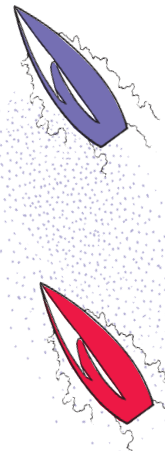
One argument says you should take fewer risks, stay close to other boats and pass them with speed. Another says you can afford to take more strategic risks since you can use your speed to recover if necessary. Just be aware of your relative speed and make sure you consider this in your strategy.

**Wind shadow effect**

When you're trying to sail up through the fleet, one of your biggest obstacles is the bad air of other boats. On any day, it's important to know how much these wind shadows slow you down.

Often you'll be sailing toward the favored side of the course and a boat will tack on you. Should you keep going or tack to clear your air?

In light wind, bad air really hurts, so it's almost always best to tack and clear your air. In heavy air, however, it won't hurt so much to sail in bad air so you might want to continue, especially if you have a strong reason for staying on that tack.





# Catch up on windward legs

When you're trying to catch other boats on a windward leg, the good news is that the fleet usually spreads out a lot on beats. If the wind changes very much in direction or velocity, this separation creates good passing opportunities.

But the bad news is that the boats you're trying to catch are all between you and the wind. This means you must constantly dodge wind shadows, especially when you are sailing toward the 'favored' side.

As a result, beats often allow the "rich to get richer." The leaders have clearer air, go faster and keep getting farther ahead. Here are some strategies that will help you catch up to, or at least stay even with, the boats in front of you:

• **Stop the bleeding.** One of the keys to a good comeback is taking action as soon as you recognize

that things are going downhill. This means you might have to bail out of a bad start well before the starting gun (see photo), or "bite the bullet" when you recognize you're on the wrong side of a persistent shift (see page 8). The critical thing is to stop the bleeding early. The longer you wait to change things, the farther behind you will get.

• **Make a smart first tack.**

If you have a bad start, your most important decision may involve when to make your first tack off the line. Sometimes you will have one opening right away, so you have to be ready to grab it. Other situations require more patience. For example, if you would have to duck 10 boats on port tack, it might be better to sail a few more boatlengths and see if one or two boats clear out. Then maybe you can cross them all.

"When you are in a hole, stop digging."

- Ian McIver

• **Gain distance early.** In most comeback attempts, your priority in the early part of the race should be to gain as much (or lose as little) distance as possible on the rest of the fleet. Try to do the right things strategically so you get back in touch with the leaders. As the race goes on, focus more on the tactics of passing boats in front of you.

• **Keep your eye on the prize.**

Remember that your goal is to get to the finish as soon as possible, so be careful of things that might slow you down along the way:

- Don't mess with other boats.

To improve your position, you must pass other boats, but try not to get tangled up with them. Every time you make a tactical move relative to another boat you lose to the rest of the fleet, so minimize the time and distance you waste.

- Don't tack too much. In most

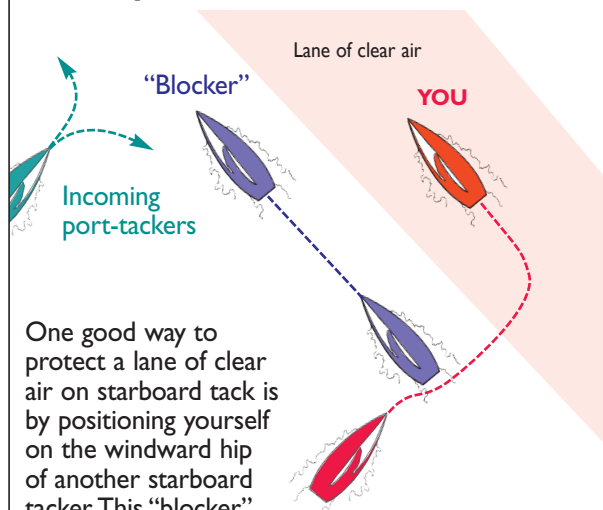
## Take early action to minimize loss at the start



JH Peterson photo

It's never too soon to bail out of a bad start and try to salvage a good spot on the line. Sailors often know well before the starting gun that they are heading for disaster, but too many sit in a hopeless position and let time tick away. The longer they wait, the fewer chances they have for recovery. The first step in recovering from a bad position is knowing that you're in a bad position. As soon as you realize this, be proactive. If you begin your comeback well before the start, like Flying Scot #3 (hope this worked out better than it looks!), you'll have a much better chance of success than if you wait until after the gun.

## Protect your lane with a blocker



One good way to protect a lane of clear air on starboard tack is by positioning yourself on the windward hip of another starboard tacker. This "blocker" will deflect incoming port tackers that otherwise might tack on your lee bow and give you bad air. One way to set yourself up with a blocker is by ducking them on port and tacking two or three lengths to windward.

boats you lose at least a boatlength every time you tack. So one of the worst things you can do is be a sailing ping-pong ball. It's usually better to tack than to sail in bad air, but if you find yourself tacking too much, work harder at getting lanes of clear air.

- *Don't sail in bad air.* In light to medium wind, a boat sailing in bad air might be going only 75% of the speed of a boat in clear air. That means you could be losing one boatlength or more every ten seconds! This is way too costly unless you have a very good reason for remaining in that position.

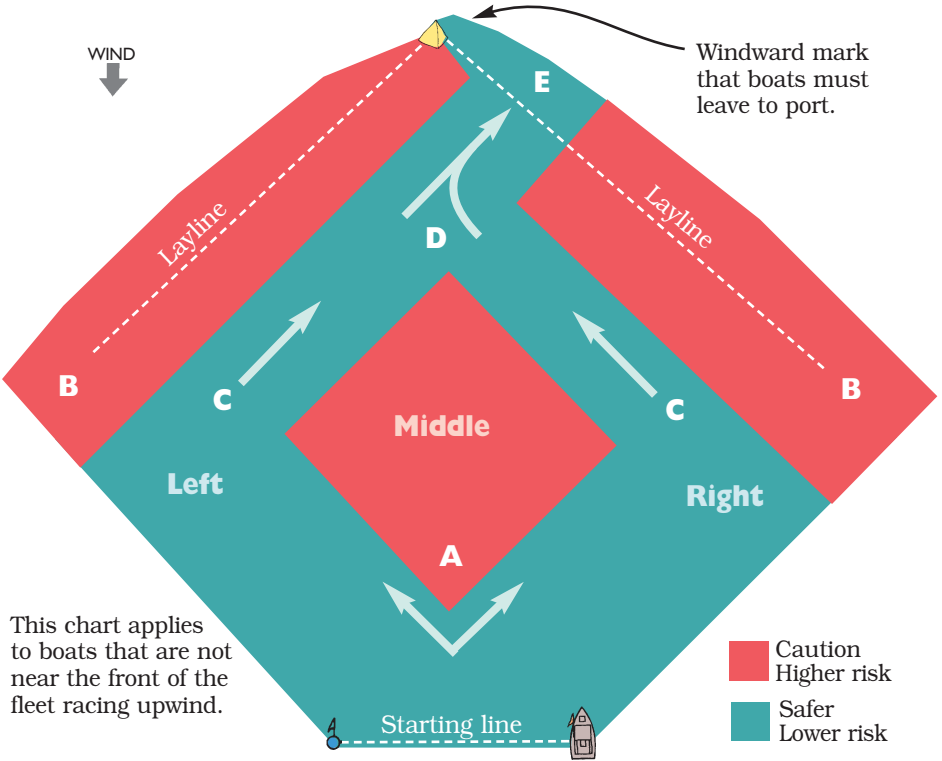
• **Anticipate changes.** It's always important to anticipate what will happen with the wind, but when you're back in the fleet, you have to think about what the other boats will do too. Keep an eye on the boats ahead of you and use smart tactical moves to stay in control of your race (see page 9). •



When there are a lot of boats ahead of you, getting to an upwind layline too early can be tough (i.e. slow).

## Think ahead about how to sail the first beat

The best way to start a comeback is by finding a lane of clear air going up the first beat. This is a very valuable resource when there are lots of boats ahead of you. The leaders can go almost anywhere they want, but if you're stuck in the middle or back of the pack, you have to work much harder at getting and keeping clear air. There seem to be certain places on the course where this is easier than others. These are shown in green on this map of the first beat. When you're in a green zone, you will usually (but not always) have a better chance of getting clear air than when you're in a red 'caution' area.



**A. Avoid the middle** – It is usually difficult to catch up by playing the middle of the course, especially in lighter air. The wind and water are very disturbed here and you often end up ping-ponging back and forth to avoid bad air from boats that tack on you. One time when this might work is on a windy day with oscillating shifts; otherwise try to pick the right or left before you get too far up the beat.

**B. Avoid the corners and laylines** – While it's smart to avoid the middle, you also don't want to sail too far toward the edges of the course (see photo). If you get to a layline early, other boats will tack on you and then you'll have a choice of two bad options: sail slow in bad air or clear your air and overstand the mark. One time you should go to a corner is when that side is very favored and the gains you make are greater than the potential cost of overstanding or sailing in bad air.

**C. Look for a lane before the layline** – If you want to play one side of the course but avoid the layline, you have to look for a way to cross back toward the mark with clear air. Often there is a lane of clear air roughly 10 lengths to leeward of the layline. When you're sailing in this area, boats that cross ahead of you will most likely keep going to the layline. And boats that tack on the layline are probably too far away to give you bad air.

**D. Approach the mark on port tack** – Though a port-tack approach has certain risks (under the rules), they may be worth taking if there is much congestion on the starboard layline. You can make huge gains here over boats that sail in bad air or overstand on the starboard layline. However, try to be at least four lengths from the mark when you hit the starboard layline so you can avoid tacking inside the zone.

**E. Make a safe final approach** – If you're in a crowd at the top of the beat, it's better to overstand the mark slightly (by one or two lengths) and avoid potential messes there. This is good, low-cost insurance.

More upwind ideas on page 8 •

## Be willing to “bite the bullet”

Persistent  
Shift  
↓ ↓

When you're trying to catch up, you must be willing to cross behind other boats when this is the right thing strategically. Too often sailors press on in the wrong direction simply because they don't want to face the fact that other boats are ahead of them.

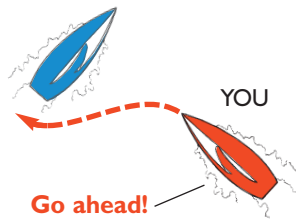
But when you're sailing upwind, a basic rule of thumb is to sail toward the next shift. If you want to come back in the race, you should usually follow this principle and forget about what the other boats are doing.

One of the toughest times to do this is when you're on the outside of a lift. If the wind is oscillating, you should stay there and wait for the next header. But if this is a persistent shift, you need to recognize it early and be willing to “bite the bullet” by tacking and sailing toward that shift (even though this may mean going behind many other boats).

## Stay in control of your race

It's always important to have good boat-on-boat tactics so you keep your race-course options open and avoid being controlled by other boats. But this is especially important when you're trying to work your way through a bunch of other boats. You won't have too many chances to get lanes of clear air, so you must be ready and able to take advantage of those opportunities when they come.

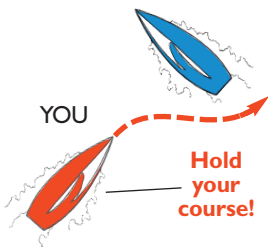
**Let other boats cross** – This may seem hard to do when you're trying to catch any boats you can. But sometimes you must look beyond the boat that's right in front of you. If you want to go left, it's better to let one boat cross so you have a better chance of catching other boats.



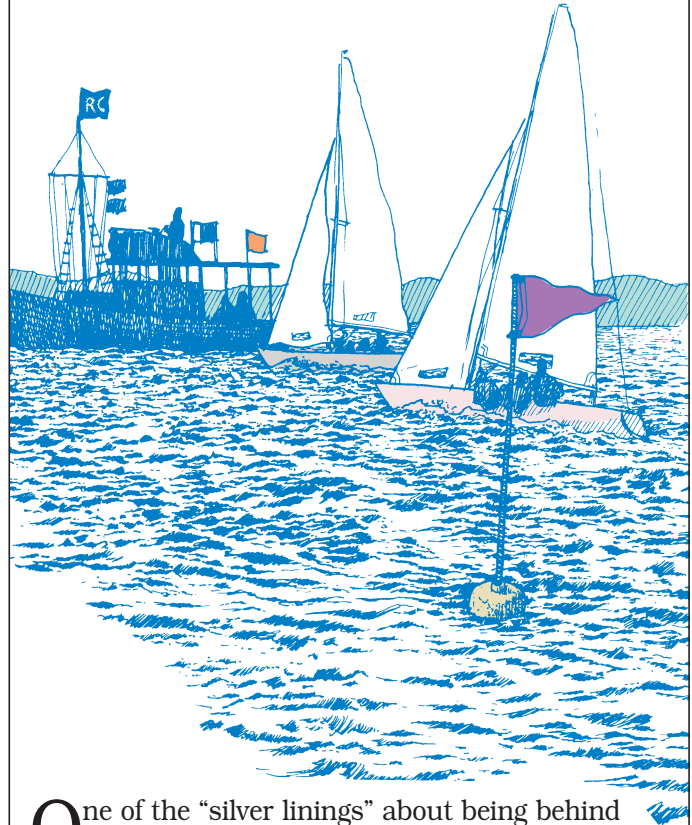
**Don't get pinned** – Try to keep the option to tack at all times. Avoid getting into positions where other boats dictate what you must do. Here the Blue boat is too close for you to tack and too far away for you to squeeze them off.



**Preempt a harmful tack** – Once in a while, right after the start, all that stands between you and a lane of clear air is one starboard tacker you must duck. Reduce the chance this boat will tack in front of you by hailing “Hold your course!” This is not binding, but it tells S that you are close and they must be careful about turning in front of you.



## Learn from the boats ahead.



One of the “silver linings” about being behind is that you can learn a lot by watching what happens to the boats ahead of you.

**Changes in the wind** – When you're sailing upwind, the leading boats get puffs and shifts before you. They are like a bunch of helpful wind indicators spread across the course, so watch carefully.

**Laylines** – When you cross behind other boats, you can get a great view of whether or not they are on the layline. In addition, watch what happens at the windward mark to see if current may be a layline factor. If so, give it a wide berth.

**Jibe set** – When rounding onto a run, it's often hard to know whether you should do a jibe set or not. To help make your decision, watch the boats ahead. How does it look for the boats that jibed at the mark? It makes your choice a lot easier when you can see a bunch of boats testing this move.

**Gate mark** – It's difficult to know which gate mark is favored until you get very close to the gate, so watch the boats ahead. In particular, when a boat has an equal choice of going to either gate mark, which one does she choose?

**Finish line** – The ends of the finish line (see the drawing above) are like gate marks – it can be hard to know which is favored until you get very close. So watch where the boats ahead finish, especially when they are very close with other boats.



## NEW RULES

# 2013-2016 IQ TEST

## How well do you know the 2013-2016 racing rules?

Here is the latest version of the Racing Rules IQ Test from *Speed & Smarts!* This year's test has 100 brand new questions that are designed to find out how well you understand the new 2013-2016 edition of the rulebook.

This special IQ Test focuses on all the changes in the new rules. You can take it with an open rulebook, or if you'd like a challenge similar to what you will face on the race course, try it first without looking at the rules. Many of the test topics were covered in Issue 124 of *Speed & Smarts*, which explained changes in the current rulebook. When you finish this test, check your answers on page 3 of this issue. We didn't have enough room for an expanded explanation of the answers here, so that will be in the next issue (#106). Good luck!

### TRUE or FALSE?

#### Changes in the Definitions

**1** Whenever a boat is entitled to mark-room, this includes space to tack if that is her proper course around the mark. T F

**2** When a racing boat is steering a course that will just miss a large obstacle, that object is not considered an obstruction. T F

**3** A tugboat moving through the course could be considered a continuing obstruction. T F

**4** When a boat entitled to mark-room is rounding a mark, she can sail her proper course. T F

**5** Mark-room includes space for a boat to sail a seamanlike course toward the mark. T F

**6** An object that is big enough to be an obstruction for one boat might not be an obstruction for another boat. T F

**7** A boat is not fetching a mark unless she can pass on its windward side without sailing above a closehauled course. T F

**8** A boat that is racing is never considered to be a continuing obstruction. T F

**9** When only a boat's spinnaker is in the zone, she is not considered to be "in the zone." T F

**10** Two boats sailing downwind on opposite tacks are not considered to be overlapped unless they are subject to rule 18. T F

**11** The terms clear ahead, clear astern and/or overlap always apply to boats that are on the same tack. T F

**12** The zone is always circular in shape. T F

**13** There is never a zone around an obstruction. T F

#### New Section C Rules

*The following questions concern the new versions of rules 18, 19, 20 and 21.*

**14** A right-of-way boat may choose to pass an obstruction on either side. T F

**15** A boat required to give mark-room must always continue to do so until the other boat has passed the mark. T F

**16** A leeward boat is not permitted to hail for room to tack at an obstruction if the boat to windward of her is fetching it. T F

**17** Rule 19 (Room to pass an Obstruction) never applies at the race committee boat. T F

**18** If two boats were overlapped when the first one entered the zone, the outside boat must thereafter give mark-room to the inside boat. T F

**19** Rule 18 (Mark-Room) does not apply unless both boats are in the zone. T F

**20** A boat can hail for room to tack at a mark if it is also an obstruction. T F

**21** If one boat tacks inside the zone and a fetching boat then must change course to avoid her, the boat that tacked must take a penalty. T F

**22** When a boat is taking mark-room to which she is entitled, she will be exonerated if she breaks rule 16 (Changing Course). T F

**23** Rule 18 (Mark-Room) never applies at a mark that is also a continuing obstruction. T F

**24** If one boat hails for room to tack and the hailed boat thinks the hail is too early, she is still required to respond. T F

**25** At a leeward mark, when a port-tack boat enters the zone clear ahead of a starboard tacker, the port-tacker has the right of way until they pass the mark and rule 18 turns off. T F

**26** When a boat gets an inside overlap from clear astern, she is never entitled to mark-room unless the outside boat has been able to give mark-room from the moment the overlap began. T F

*(continued on next page)*

## NEW RULES

# 2013-2016 IQ TEST

### The new ISAF Casebook

**27** A crewmember may not trim a sail by holding its sheet outside the boat's sheerline. T F

**28** A crewmember is not permitted to trim a sail by positioning his or her torso outside the lifelines. T F

**29** There are certain times when a boat is required to sail her proper course. T F

**30** If a boat breaks a rule but continues racing, she may protest for a separate incident later in the race. T F

**31** If B breaks a right of way rule and A loses 10 boats in the process of avoiding B, A is entitled to redress. T F

**32** When a boat gives help to a vessel in danger, she can get redress only if the other boat asked for assistance. T F

**33** If the race committee fails to make the correct recall signal, a boat cannot get redress if she knew that she was over the line early. T F

**34** The sailing instructions can be changed by verbal instructions given during the competitors' meeting. T F

**35** When a boat hits a mark, she can take her penalty turn around the mark. T F

**36** A competitor cannot protest the race committee for breaking any rule. T F

**37** The race committee is never required to file a protest against a boat. T F

**38** Rule 13 (While Tacking) turns off when a boat gets to her closehauled course even if her sails are luffing. T F

**39** Rule 16 (Changing Course) does not restrict the course of a boat that is required to keep clear. T F

**40** Whenever a boat changes course, she does not break rule 16 if she is always sailing her proper course. T F

**41** When a right-of-way boat is turning at a constant rate, the keep-clear boat must anticipate future course changes. T F

**42** One boat keeps clear of another if she avoids contact with the other boat. T F

**43** In the definition Room, the phrase 'seamanlike way' applies to a boat that is being handled 'expertly.' T F

**44** Class rules cannot change any rules other than the seven listed in rule 86.1c. T F

**45** When two boats on the same tack are not overlapped, the boat clear ahead does not have to act to keep clear until the other boat gets a leeward overlap. T F

**46** A boat must do everything reasonably possible to avoid contact, including keeping a good lookout and hailing. T F

**47** A boat does not finish a race unless she sails the course properly and then crosses the finish line from the course side. T F

### Other Rule Changes

**48** The race committee can shorten the course after the first boat has already crossed the new finishing line. T F

**49** The race committee can abandon a race after the first boat crosses the finish line. T F

**50** If you are racing and you receive outside assistance under Fundamental Rule 1 (Safety), you must retire. T F

**51** Sails that are not being used are not ballast, so they can be moved while racing. T F

**52** A boat may not sail below her proper course on a downwind leg if a leeward boat is within two lengths of her. T F



JH Peterson photo

**53** When a boat is disqualified by the jury, she can request redress from that decision. T F

**54** The sailing instructions can change a class rule unless the class prohibits this. T F

**55** In certain cases, a racing boat is permitted to interfere with a boat on another leg. T F

**56** If a boat got a leeward overlap from clear astern on the same tack, she can regain the right to luff by jibing twice. T F

**57** When a leeward boat (L) hails for room to tack at an obstruction, the windward boat (W) does not have to respond if:

- A) the boats are approaching a starting mark to start;
- B) the obstruction is a mark that W is fetching;
- C) L has to change course only slightly to avoid the obstruction;
- D) all of the above; or
- E) none of the above.

**58** When two boats of different sizes approach a mark, the zone's size is determined by the:

- A) hull length of the larger boat;
- B) hull length of the smaller boat;
- C) average hull length in the fleet;
- D) hull length of the boat that is closer to the mark; or
- E) none of the above.

**59** A boat cannot sail above her proper course when she gets a leeward overlap from astern within two hull lengths of the windward boat. Which hull length is used?

- A) average hull length in the fleet;
- B) hull length of windward boat;
- C) hull length of leeward boat; or
- D) none of the above.

**60** A boat cannot sail below her proper course when:

- A) she is a keep-clear boat entitled to mark-room;
- B) another boat is within two lengths to leeward of her;
- C) a boat clear astern is steering a course to pass to leeward; or
- D) none of the above.

## SITUATIONS

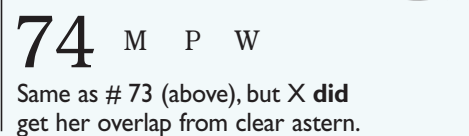
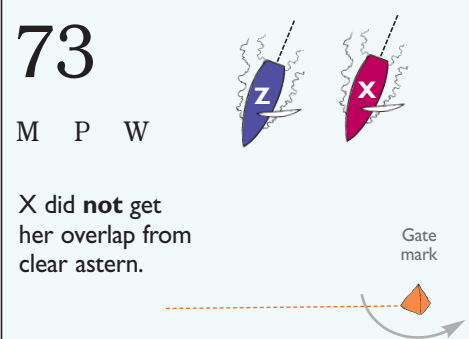
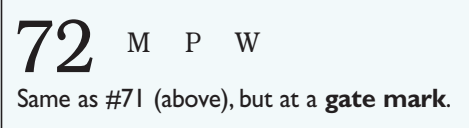
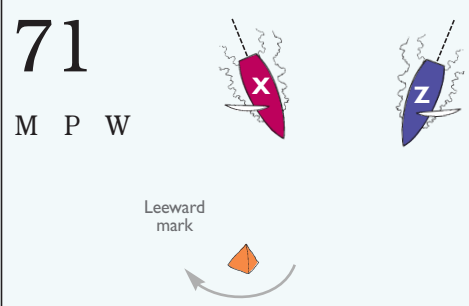
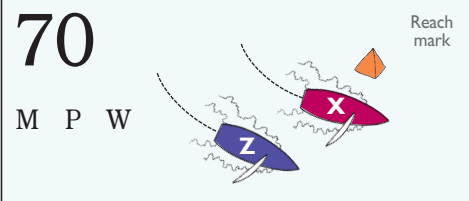
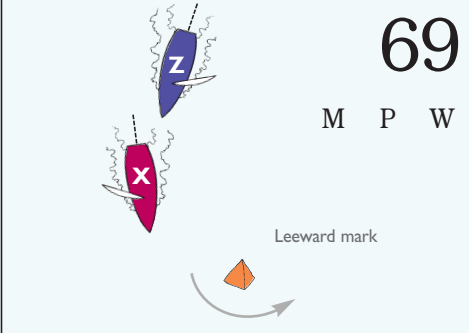
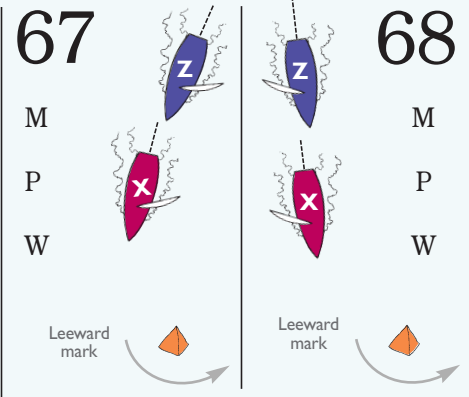
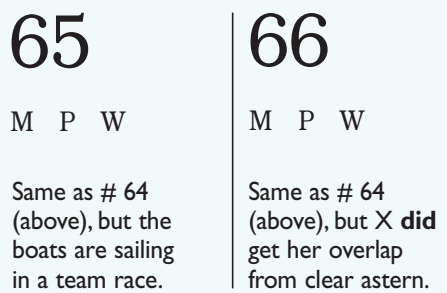
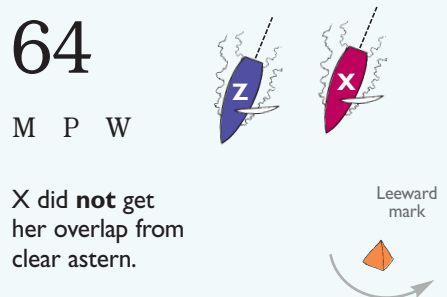
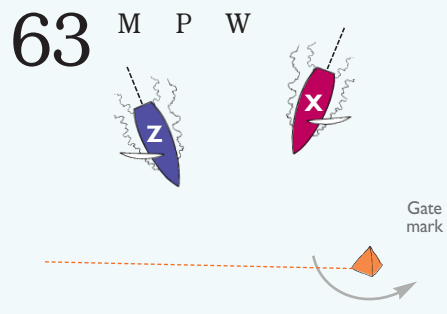
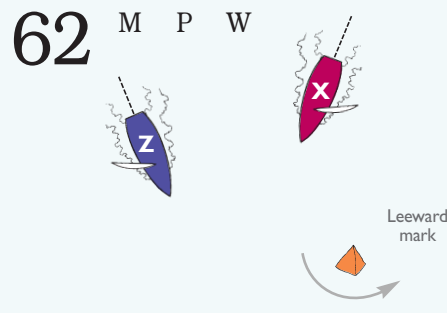
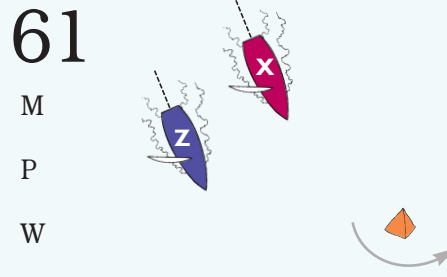
In Situations 61 to 74, Z must give X mark-room. In each position shown:

**How wide can X sail?**

**M** Mark-room ('seamanlike' course)

**P** Proper course rounding

**W** Wider than a proper course



## NEW RULES IQ TEST

(continued from previous page)

In Situations 75 to 80 and 88 to 90, is the statement True or False? Or do you need 'More info' to know?

**T** True **F** False **M** More info

**75** W must keep clear of L.



T F M

**76** S must give P mark-room.



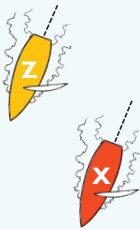
T F M

**77** Z is permitted to sail below her proper course.



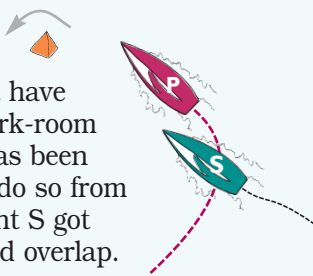
T F M

**78** X is permitted to sail above her proper course.



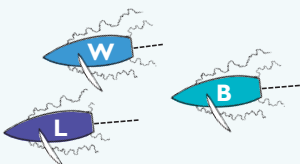
T F M

**79** P does not have to give mark-room to S if P has been unable to do so from the moment S got her leeward overlap.



T F M

**80** If B gets a leeward overlap on W, she's entitled to room between W and L if W is able to give room from the moment her overlap begins.



T F M

## FILL IN THE BLANKS

For Questions 81-87, fill in the blanks with the correct number of hull lengths:

0 1 2 3 4 5 or D (Doesn't apply)

**81** In fleet racing, the zone around a mark is always a distance of \_\_\_\_ hull length(s).

**82** The sailing instructions may change the zone to \_\_\_\_ or \_\_\_\_ hull length(s).

**83** In match racing and team racing, the size of the zone is \_\_\_\_ hull length(s).

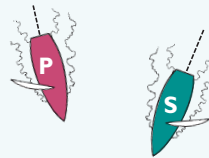
**84** The zone at an obstruction is normally a distance of \_\_\_\_ hull length(s).

**85** On a downwind leg, a windward boat cannot sail below her proper course when a leeward boat is within \_\_\_\_ hull length(s).

**86** An object is an obstruction if it would cause a boat to make a substantial change of course when she is sailing directly at it and \_\_\_\_ hull length(s) away.

**87** A boat may not sail above her proper course when she gets a leeward overlap from clear astern within \_\_\_\_ hull length(s) of a boat on the same tack.

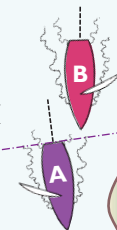
**88** P and S are considered to be overlapped.



T F M

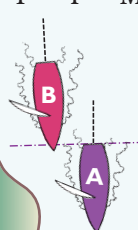
**89** If B gets an inside overlap, A does not have to give room.

T F M



**90** A does not have to give room to B here.

T F M



For Questions 91 to 100, which of the following rules apply?

**18** Mark-Room

**19** Room to Pass an Obstruction

**N** Neither 18 nor 19

**B** Both 18 and 19

In each situation, assume both boats are • in the same race • overlapped on the same tack and • at least one is within three lengths of the mark or obstruction.

**Two boats are approaching...**

**91** ... the stern of the race committee boat 6 minutes before the start. Rule \_\_\_\_

**92** ... the stern of the race committee boat 20 seconds before the start. Rule \_\_\_\_

**93** ... the pin end of the starting line three minutes before the start. Rule \_\_\_\_

**Two closehauled boats on port tack approach...**

**94** ... an anchored power boat in the middle of the course. Rule \_\_\_\_

**95** ... an anchored power boat that is the windward mark. Rule \_\_\_\_

**96** ... a racing boat that is on starboard tack. Rule \_\_\_\_

**97** ... a starboard-tack racing boat and the leeward boat hails for room to tack. Rule \_\_\_\_

**Two boats reach alongside...**

**98** ... a shoreline on their windward side. Rule \_\_\_\_

**99** ... a third boat overlapped to leeward. Rule \_\_\_\_

**100** ... the rocky shore of an island that is also their windward mark. Rule \_\_\_\_

The **IQ TEST ANSWERS** are on page 3. Extended answers will be included in Issue 106.

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Updated for the 2013-2016 rulebook



## PERFORMANCE

# Keep your speed up

When you've fallen behind, good boatspeed is absolutely key for making a comeback. But it's not easy to go fast in the middle of the fleet. It can be tough just keeping up with the leaders, not to mention catching them. Therefore, you must work extra hard at steering, sail trim and boathandling.

When you're in the middle of the pack, you often have to sail in bad air and bumpy water, and you must usually tack more frequently than the boats ahead. Therefore, set up your sails so they are good for acceleration and power. Some ways to do this include:

- Make your sails a little fuller and more powerful;
- Move their draft forward slightly (by using less backstay and mainsheet) to improve acceleration;
- Ease your sheets slightly to add

**"An obstacle is often a stepping stone."**

— Prescott



One good thing about being near a lot of other boats is that you get many chances to check your speed. Are you as fast or faster than the boats around you? If not, use the line-ups that occur while racing to try some trim or tuning changes and see what happens.

twist and make a wider groove; and

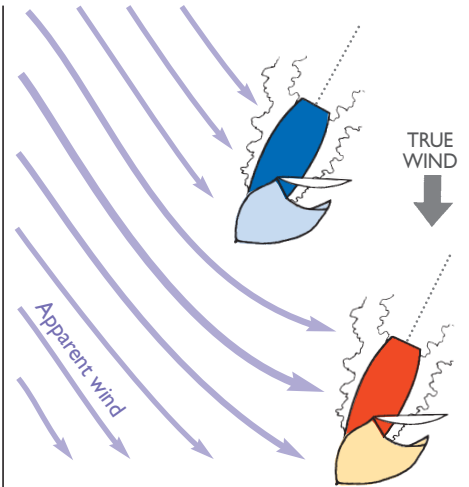
- Don't try to point too high.

When you are sailing in bad air, you will probably have to find a 'groove' where you go more for forward speed than height. This means you must also adjust your strategy and tactics for this type of performance. For example, make sure you can lead other boats toward the next shift, and avoid getting into positions where you have to hold a thin lane with other boats close to leeward.

Of course, the best way to go fast when you're back in the pack is to find clear air. So look carefully for a good "lane" and do everything you can to protect it for yourself. If you do find clean air and water for a while, be sure to "change gears" by adjusting your sail shapes.

### Use other boats to help

One reason why it's important to focus on boatspeed during a comeback is because speed might have been the reason (or one reason) why you fell behind in the first



Sometimes the presence of other boats will actually help you go faster when you are running or reaching. If you position yourself to leeward of a competitor with your apparent wind just clear ahead of their spinnaker, you will sail a little faster and lower than if the other boat wasn't there. That's because the wind bends around the front of the windward boat's sailplan, and this means you will be sailing in a slight header with a little extra velocity. (Just be careful that you don't let the other boat take your wind!)

place. Perhaps you had trouble holding your lane right after the start and fell into bad air. Or the other boats just seemed to be going a little better through the water.

In that case, you need to get your boat going faster as soon as possible or you will fall further and further behind. Fortunately, one of the good things about being in the middle of the pack is that there are almost always other boats nearby. Use these "obstacles" to measure, and improve, your speed.

Whenever you are in a good lineup with another boat (as in the photo), use this chance to a) gauge how well you are sailing; and b) if you're not going as fast or high, try changing some things to see if you can get going faster.

Good speed requires constant communication between sail trimmers and the helmsperson, plus a focus on changing conditions. This can be challenging when you're in the middle of making a comeback because there is a lot happening. It requires extra effort to eliminate or tune out all extraneous 'noise.' •



# Come back on the downwind legs

When you're trying to come from behind, runs are much more friendly than beats. You will get the puffs first, and you can use your wind shadow to attack the boats ahead. Plus, the closer you are to the back of the fleet, the easier it is to sail in clear air!

• **Sail the longer jibe first.**

This is good advice for beats or runs, but it's especially important downwind because your jibing angle is typically narrower than your tacking angle. This means one jibe is often much longer than the other, and it rewards those sailors

who take the longer jibe first.

Remember that part of your comeback strategy is to let other boats make mistakes. By following high-probability rules of thumb, you are bound to catch some boats that take more risk.

• **Stay in the puffs.** Finding better wind velocity is even more important on a run than a beat because it allows you to sail both faster and significantly lower. One of your advantages when trailing is that the puffs hit you first. If you keep an eye on the wind behind and position yourself correctly, you

"Don't give up at half-time. Concentrate on winning the second half."

- Paul 'Bear' Bryant, coach

can often find better wind pressure that will bring you right back into the race. Also, sometimes when you look ahead you can see boats that have fallen into a hole. Another benefit of being behind is you can often sail around these dead spots.

• **Avoid the laylines.** It's easy to overstand the leeward mark since downwind jibing angles are narrow and even a small increase in wind pressure can change your angles dramatically. So stay near the middle and let the boats ahead show you where the laylines are. If you are sailing to a gate, don't overstand either mark until the other boats indicate which is favored.

## Reaches: Sail the shortest path possible



J.H. Peterson photo

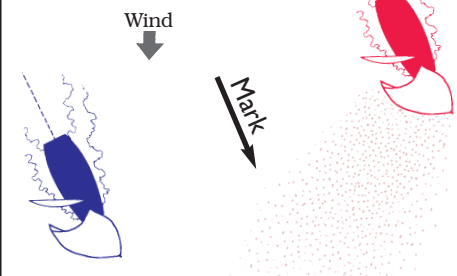
When you're trying to make a comeback, don't sail more distance than necessary. As they say, the shortest distance between any two points is a straight line, and this is especially true on reaching legs. Though the relative order of the boats doesn't usually change too much during reaches, the middle of the fleet tends to get farther behind the leaders. That's because each boat sails a little higher than the boat in front of her, and this causes the entire fleet to sail a high arc to windward.

The leaders, who are in clear air and less traffic, are able to sail closer to the rhumbline (the straight-line distance between marks). As a result, they end up sailing a shorter distance than the boats behind, and so they get farther ahead.

When you're trying to catch up, therefore, don't worry too much about passing boats on reaches. Of course, there are times when you can take the high lane and plane over a large pack ahead of you. But most of the time the key is to minimize the amount of distance that you lose to all the boats in front. It will do little good, for example, to roll over the top of one boat if, in the process, you sail so high that you lose ten boatlengths to every other competitor.

Therefore, you should sail fast with clear air and, most importantly, try to sail a shorter distance by sticking as close to the rhumbline as possible.

## Use your wind shadow as a tactical weapon

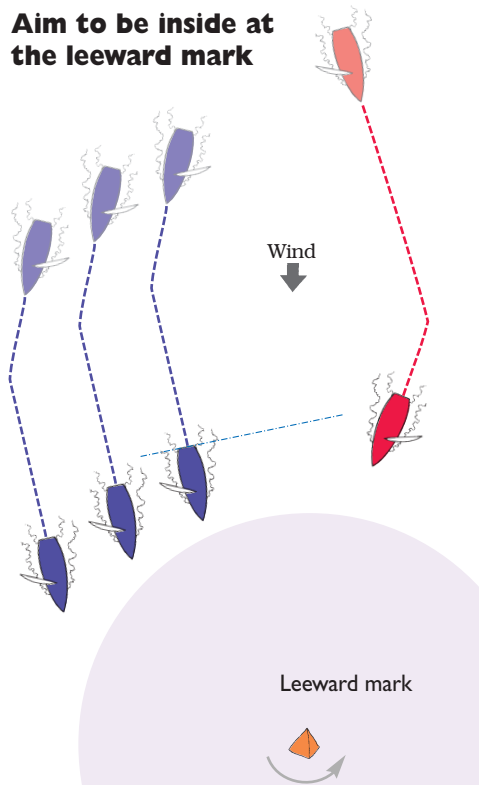


When you're behind, use your wind shadow to pass other boats by slowing and/or 'herding' them. The best technique is to position your wind shadow just ahead of the other boat on the longer jibe. Now she will have to sail through your bad air to get to the mark. You can also bear off slightly to put her in your wind shadow sooner. This will slow her down or force a jibe and is much more effective (and much less costly relative to the fleet) than trying to blanket the other boat from astern (unless the boats are sailing very close to dead downwind).

• **Stick to priorities.** At the beginning of the run, you should focus on strategy. Play the wind shifts and the puffs and try to get closer to the boats ahead. Then, as you approach the end of the run, change your priority from strategy to boat-on-boat tactics. Now is the time to use your wind shadow and your positioning (*see below*) to pass boats and set yourself up for a good start to the next beat.

No matter which leg you're on, one of the keys to making a comeback is setting your sights on the fleet ahead. If you sail aggressively and smartly and minimize mistakes, you'll continue to move up through the fleet. But if you keep looking over your shoulder at the boats behind, it usually means you will stop moving forward. •

**Aim to be inside at the leeward mark**



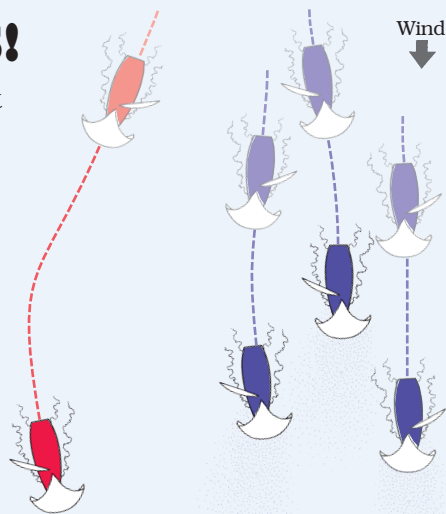
In many races, the biggest gains are made while boats approach and round the leeward mark. The high-percentage move here is to play the left side of the course (looking downwind) so you approach the mark on starboard tack. This will give you the right of way and a good chance of getting an inside overlap on boats that were ahead of you. In the worst case, you are still behind but ready for a tight rounding in case any boats ahead go wide.

**AVOID CLUMPS!**

On runs and reaches, boats that are sailing by themselves almost always travel faster downwind than boats that are sailing in a pack, or 'clump.' That's because the boats in a clump constantly have to deal with the disturbed air and water of all the other boats in their group. The net result is that they slow each other down.

A clump tends to travel at about the same speed (or even slightly slower than) its slowest member. When one boat pulls ahead, it usually gets sucked back into the clump. It's hard for any boat to get away from the invisible forces that seem to hold them all together.

Therefore, when you're trying to pass boats and gain distance on the fleet ahead, it's usually a good idea to avoid clumps. By sailing downwind on your own, you can always sail your optimal angles and play the waves the way you want without worrying



about sailing into other boats' wind shadows.

If you do get caught in a clump, get out of it early and aggressively. It's difficult to escape by sailing ahead of the clump because the other boats' wind shadows are always lurking just behind. Instead, sail a little higher than normal and move to the side of the clump. Once you have your own space, you can start sailing fast forward.



JH Peterson photo

**One place where you'll find frequent and ferocious clumps is around marks. When a lot of boats all try to squeeze around a mark at the same time, the potential gains and losses are big. So follow this rule of thumb: always round the mark close enough so you can reach out and touch it. Usually this means it's better to slow down so you are right behind a clump than stuck in the middle of it. Occasionally it pays to make a wide rounding, but more often than not this leads to disaster.**



# Lead your team to a comeback

A good comeback almost always requires a complete team effort. Unless everyone on your boat is trying hard and working together, it will be difficult to improve your position in the race very much.

As a crew member, you need to take responsibility for helping get your team back in the race. Here are some things you should do.

• **Be positive but realistic.**

You may need to be a cheerleader for the rest of your team, but don't sugar-coat the truth. You will be most helpful if you are factual and objective. Make sure to report any positive steps in your comeback, no matter how small they may be.

• **Watch the boats ahead.**

A crewmember should always watch the wind and waves ahead. But when you are back in the fleet, it's also very important to keep an eye on what's happening with the boats in front of you (see page 8).

**"Never talk defeat.  
Use words like hope,  
belief, faith, victory."**

– Norman Vincent Peale, author



JH Peterson photo

**When you're back in the pack and trying to catch up, it's more important than ever to keep your head out of the boat and communicate with the other people on your team. Try to anticipate what will happen so you can take full advantage of each opportunity that comes your way.**

• **Adjust trim.** The boats in the middle of the fleet often have to sail in bad air and bumpy water, so trim your sails accordingly. Add power and twist to your sail plan, and aim for footing more than pointing. Shift gears as you sail in and out of wind shadows and waves.

• **Execute perfect tacks.** When you're fighting to find clear air, the difference between living in a lane

or falling farther behind may be the quality of your tacks. Don't settle for anything but your best tacks.

• **Be ready for any moves.**

The race leaders tend to see fewer surprises than boats farther back which must constantly deal with unexpected maneuvers of nearby competitors. So as a crew member, you must always be ready for almost any tactical move. •

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