



# David Dellenbaugh's **SPEED & Smarts**™

The newsletter of how-to tips for racing sailors

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## Starting Tactics

# Take control at the start

Developing a strategy is only half the battle in getting a good start. The other half is employing good *tactics* – those boat-on-boat moves you use to whittle out a hole for yourself on the line. You can have the greatest strategic plan in the world, but if you don't have the tools to implement it, you'll lose control of your start.

Pre-start tactics begin as soon as you've decided on your strategy. From this moment on, everything you do should be designed to help you carry out that plan. For example, if you want to go deep into the left corner because of more wind, you'd better set yourself up near the leeward end of the line with clear air and a good hole to leeward; otherwise you'll get pinched off and forced to tack the wrong way.

Control is the key. If you are skillful enough to control your boat and your competitors around the starting line, odds are good you'll be able to implement your strategy. If not, you will be controlled by the rest of the fleet with little chance to do what you want.

On a busy starting line, control comes primarily from two factors: 1) precise boathandling skills; and 2) good rules knowledge.

### Work on your boathandling

One of the prerequisites for effective starting tactics is good boat-handling skills. These come from practice time in your boat and good teamwork between all crew members. Here are some of the specific things you should be able to do:

- Hold your boat within 10° of head to wind for at least a minute without losing steerageway.
- Accelerate from a dead stop to full speed without sailing more than 5° below a closehauled course.
- Start by luffing in place and turn your bow back and forth about 90° without moving more than one boatlength forward.

### Which hails are required?

When you're racing, communication with other boats is often important for safety and tactical considerations. In fact, there are five places in the rulebook where the rules specifically require that you make a specific hail or respond to a hail. How many can you name? (See page 11)



**QUICK QUIZ**

- In the middle of the starting line, identify the location of the line to within one half boatlength.
- Predict (within 10 seconds) how long it will take you to sail to a spot at least 100 yards away.

### Learn the key starting rules

If you aren't sure of your rights, you will be a sitting duck when the

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Which boat would you rather be? My pick is FRA-381. Of course, we can't tell how good her strategic position is. But, tactically, it's obvious she has all the makings of a good start – clear air, good speed, bow poked out, a decent hole to leeward and fairly close up underneath the windward boats. JH Peterson photo

## Starting Tactics

(continued from page 1)

line gets crowded. I don't advocate offensive use of the rules, but I do think you have to be tactically aggressive to get a good start, and the rules define precise limits for how you can maneuver your boat relative to your competitors.

All the basic right-of-way rules apply at the start, of course, but here are four specific rules to focus on for the pre-start:

■ Definition of starting (*Part I*)

■ Rule 38: Same Tack – Before clearing the starting line

■ Rule 42(a): "Anti-barging rule" (*See page 10 of this issue.*)

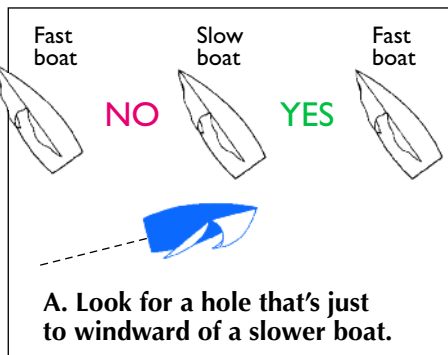
■ Rule 51.1: Sailing the Course

Once you've got a good handle on your rules knowledge and boat-handling skills, it's time to learn a few tactical tricks.

### Pick a good spot in the line-up

Making a port-tack approach is one way to find a good starting position. There are two tricks I use here:

First, I look for a boat already on starboard tack that I know is not very fast (*Diagram A*). I'll sail past



their stern, tack on their weather quarter, and then just luff above them until the start. On a crowded line, you're always going to have a boat below you, so you may as well pick who this is going to be.

A second approach is to look for a starboard tacker who already has a nice hole to leeward of him. Make a smooth, slow tack so you end up as close underneath this boat as possible (without infringing rule 36 or 41, of course), and then just hold him up until the start.

If this boat sees you approach-

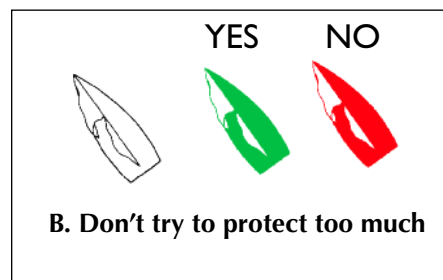
ing and begins to take defensive measures, I have two suggestions: 1) pretend you're going to sail past him and then tack at the last second; or 2) begin your tack early and, if the other boat turns back up, keep coasting head to wind until you're closer to him.

One warning about port-tack approaches: It's better to be a little early than a little late. Especially on a crowded line, the front row fills up quickly, and late port tackers risk not finding a spot.

### Defend your territory

Once you're into the starboard-tack line-up, protect your space so you'll have room to accelerate off the line. There are several ways to do this:

■ First of all, don't be a line hog. At a crowded start, a big hole to leeward will attract other boats like bees to honey. So take only as much



space as you really need – maybe half a boatlength (*Diagram B*). Once the bees (threats to your hole) are gone, work on maximizing this separation before the gun.

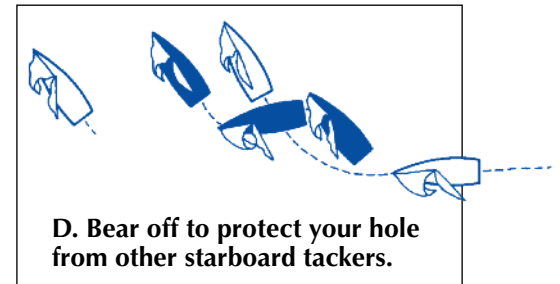
■ One way to protect your space to leeward is by pushing your boom out so it fills the hole as much as possible. This works best on boats with long booms like Thistles, Stars and fractional bigger boats.

■ As soon as you see a port-tack boat approaching your hole, the best defense is to bear off and aim at them (*Diagram C*). Try to turn



your boat without moving forward, so you don't close up your hole to leeward too much.

This move forces the other boat either to a) tack sooner than they want, at which point you should head up again sharply to maximize



separation; or b) pass behind you.

■ Bearing off is also the best way to deter starboard tackers coming from behind you (*Diagram D*). Hopefully, this will convince them either to: a) keep going down the line; or b) stick their nose above you, at which point you head up sharply to trap them so they can't bear off across your stern.

The important thing about starting tactics is to keep the big picture in mind. Don't win the battle if it costs you the war. After all, tactics are intended to give you better control. And the purpose of control is to help you implement your strategy so you get to the finish sooner. ●

## FOLLOW-UP QUESTION

**What are some common mistakes that sailors make when getting ready for the start?**

**BUDDY MELGES:** The big problem around the starting line is that people get too intent on using the rules and playing around with one or two other boats. They tend to lose sight of the forest for the trees.

Think of it this way: If you were driving down the road and a cow crossed in front of you, would you run into the thing and then back up and say "Gee, I shouldn't have done that"?

Keep your head out of the boat and watch what's happening up the race course.

# Starting in a handicap fleet

**O**K, you just got the scratch sheet for your upcoming series, and found out you're at the bottom of your class. That's what happened to us on *Gaicho* at this year's Yachting Key West Race Week. We were the low boat in IMS A, with six boats rating at least 20 seconds per mile faster.

Even with an experienced crew on board, the biggest challenge was deciding how to start. Should we always be to windward of the bigger boats? Or were there times when we should be to leeward, even though we might get rolled soon? Here are some ideas:

- **Size up the rest of your class:** How many boats rate more than 10 or 15 seconds per mile faster than you? (For tactical purposes, consider all boats under about 10 seconds to be roughly the same size as you since it will take them a long time to roll you.)

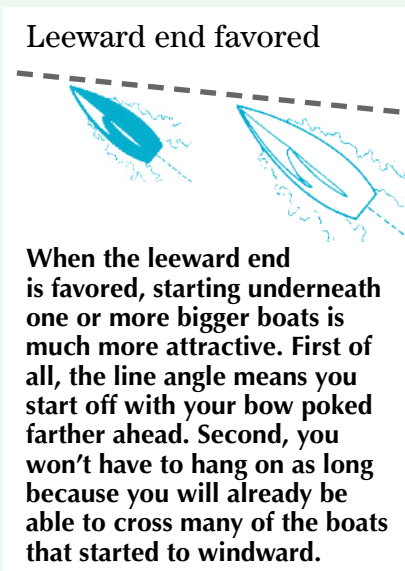
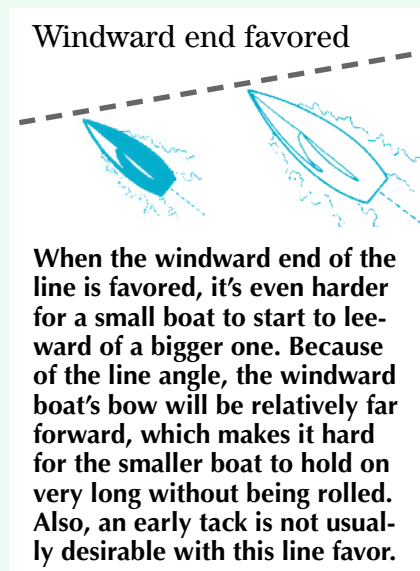
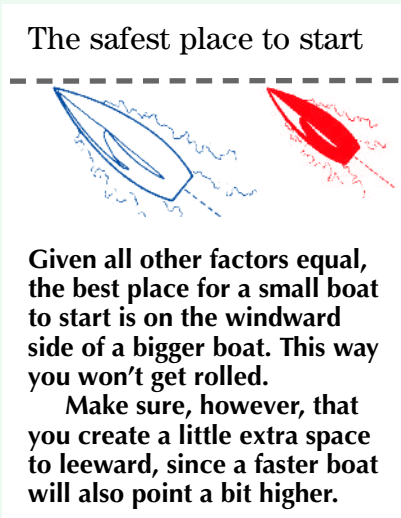
- **Get out to the race course early and develop a sound strategy for the first leg and start just as you always do.**

- **If your plan calls for a windward-end start, that's a safe approach. Line up so you are to windward of the biggest boats.**

- **If your plan calls for a leeward-end start, consider a few questions: Is your crew pretty good at starting? Are most of the boats less than 10 seconds faster? Is the leeward end favored by quite a bit? If you answer yes to at least two of these, try starting near the pin.**

- **Work extra hard at your tactics (and get a good line sight) to make sure you start right on the line with clear air and good speed.**

The key thing to keep in mind is that your start should be primarily strategy-driven. It's OK to consider the bigger boats in your tactical plan, but don't get paranoid and let them force you to the wrong side of the course.



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# BETSY ALISON

The current Rolex Yachtswoman of the Year shares her experience on how to jump off to a fast start.

*Betsy Alison is a four-time Rolex Yachtswoman of the Year; a three-time winner of the Adams Cup, and a three-time winner of the Rolex Women's Keelboat Champs. She was recently named as a core member of the all-women's America's Cup team. Besides her great results, Betsy is a true student of the sport. She is a smart and tough competitor with a lot of experience to share about how to get better starts.*

**DAVID: What are the most important tactical skills for starting?**

**BETSY:** "The first is being really organized and prepared. That's important because when you get into the starting sequence you can focus entirely on your tactics.

A second tactical skill is good time and distance judgment to the line, which also requires coordinated signals between the bowman and helmsman. Another important skill is knowing when to 'pull the trigger;' that is, when to 'speed on' for the start. This goes back to being prepared because you have to know your boat and its reactions.

Finally, I think it's important to be aggressive tactically. This doesn't mean being nasty or yelling at other people; it just means standing your ground and asserting yourself to protect your spot."

**If someone wants to become a better starter, what would you suggest?**

"I'm always trying to improve my starts, and I think no matter how good a sailor you are you can always be better at starting. You just have to practice. And the way you practice is how you will perform. So if you are practicing poorly, you will end up starting poorly as well.

My advice is to try a local club series where you can race a small

dinghy like a Laser. Get in as many starts as possible. If you don't have access to that, go out and practice time and distance, holding your position, and stopping and accelerating. The more comfortable you are with your boathandling, the less rattled you'll be when you get into a tight situation on the starting line.

I also recommend people study the rule about luffing before starting. This is very important because it has a lot to do with gaining and losing control. Unfortunately, many sailors don't understand it."



**What's one thing people should be sure *not* to do on the starting line?**

"The biggest mistake people make when the gun goes off is to steer too much. With all the adrenaline at the start, they exaggerate their steering motion unnecessarily. The best thing is to steer as little as possible and make fine adjustments with body weight and sail trim to make the boat go where you want it. Oversteering can really be slow."

**How do you make up your strategic plan for the start?**

"For me, being organized is the best groundwork. This means getting out to the race course 45 minutes to an

hour early and accumulating a lot of data about the wind, current and course. Onboard we talk about this information continuously as a team. Then usually the tactician and helmsman make the final strategy call, and everybody knows what the basic gameplan is for the first beat.

Our particular starting strategy comes out of the first beat plan. We segment the line into thirds or quarters, depending on its length, and then, based on all the information we've gathered, we select a specific zone where we want to start. A typical gameplan might sound like this: 'We want to start in the top quarter of the line and, since we think the seabreeze will go right, we need the option to tack as soon as possible.'"

**How do you set up your sail trim adjustments before the start?**

"When we get out to the race course early, we set up the sails and test against someone to find out what is fast for the wind conditions. Then we'll make note of these settings – that is, what is fast in a straight line.

Before the start, we ease everything off a bit to power up. This is important because usually there's a lot more chop as you come off the line. Then, after the start, we fine-tune our sail trim to optimize our speed relative to the boats near us."

**When do you usually try to get onto starboard tack for your final approach to the line?**

"It depends on the type of boat. In a small keelboat or dinghy, I'll usually get onto starboard tack anywhere between one minute and 45 seconds. I don't like to hang out on starboard too long because I feel like a sitting duck.

In a big fleet, the line gets filled up pretty quickly, especially if it's not very long. That forces you to set



**Betsy's focus on preparation and teamwork has really paid off in almost everything she has done. "I think the crew is the most important part of the whole effort," Betsy says.**

up a little early and protect your space. Also in light air or in bigger boats, you have to set up earlier because it takes you longer to get back up to speed.

Once you get onto starboard, you have to be aware of all the other boats around you because there will always be someone trying to take your hole at the last minute. To protect my gap to leeward, sometimes I'll just look the other skipper in the eye and nonverbally say "Don't even think about tacking into my space."

**At the gun, what's the minimum separation you want between you and the boat to leeward?**

"Of course, I like to start with a big hole below me. The required size depends on the type of boat, but in general I like to have at least half a boatlength, preferably a boatlength. In some boats, if I have good speed, I may be able to hang on with as little as a quarter boatlength.

Nine times out of ten I'll do a port-tack approach. This lets me see people setting up and it's easier to find holes. What I do is tack in

below people who have set up a little early and are trying to protect their own leeward gap. Then I hold them up high and guard my spot.

Regarding the boats to windward, I like to be at least a little bow-ahead. This is hard to judge because those boats are in a blind spot behind me, so I rely heavily on my crew to feed me that info.

I also listen carefully, because you can hear bow waves and ratchets clicking. As soon as the boat above starts to trim, I have to go with him. If that means pushing the line a little harder, I'll do it; otherwise I may end up in the back row."

**How do your starting tactics differ for large fleets versus small fleets?**

"In a large fleet you really have to pick your starting zone carefully. There almost always seems to be a vacuum in the middle of the course. At times like that it is important to start closer to an end."

**From your perspective as a skipper, what are the most important qualities you look for in a crew?**

"The ability to give very specific and clear information is unbelievably important. So is the ability to stay focused and keep up the intensity with a minimum of chatter. This way you'll be sure to get the pertinent information and let the extraneous stuff fall by the wayside."

**You've had a lot of experience as a crew yourself. What is the crew's role during the starting sequence?**

"We always put one person in charge of the compass and watching what's happening with the breeze. The tactician watches the position of the boats around us and where we are relative to our spot on the line. After the start, he or she gives me specific information about our speed and height compared to the boats around us.

The bowman keeps an eye out for boats coming at us and judges our position relative to the line. He or she uses hand signals to tell me what to do. I put the boat where we need to go. I'm also very interactive with the trimmers all the time; In fact, I probably talk more to my trimmer than to anyone else, but I watch my bowman more.

Information that's important for the skipper to hear includes: accurate calls of time to the start, feedback about what the competition is doing (especially in the skipper's blind spot), accurate time and distance to the line, careful observation of race committee signals and comments about the breeze."

**Before a regatta, is there anything special you do to get your team organized and psyched up?**

"For us, the best way to get the team psyched up is to practice hard and know we can go out and do as well or better than anyone else we are racing against. We also have a really organized schedule, which includes dates for regattas, practice sessions and boat work. We try to work on the whole project together. If we need to do boat work, for example, everyone does it as a team. We have meetings, and everybody has specific duties. Most importantly, we try to have fun as we go." ●

# Shift into acceleration mode

Going fast in a sailboat is a little like driving a car. When you're not going full speed, you have to shift into a lower gear to accelerate. Just as you wouldn't pull out of your driveway in fifth gear, you wouldn't try



to accelerate off the starting line with flat, draft-aft sail shapes that are best for high-speed pointing.

The ability to accelerate quickly is critical any time your boat is going less than full speed. This includes coming out of a tack, hitting waves and approaching the start. In all these situations, your goal is to shape your sails for maximum power.

To understand this concept, think about an airplane wing. In order to produce the lift necessary to get off the ground at a relatively slow speed, the pilot extends the flaps on the back of the wings. This gives the wings a larger area, an increased angle of attack, and more camber, or curvature (*see below*).

Once the plane gets up into the air, it is going much faster. The cambered wing shape would provide far too much power, so the pilot retracts the flaps. This gives

## Airplane wing shapes

High speed



Low speed



the wings their usual less-cambered, more efficient shape for reduced drag and higher speeds.

The same general principle applies to sail shape. When you're going fast, you don't need so much power. What you want is a flat, efficient shape that will minimize drag and allow you to point high. When you're going slow, however, you need a fuller, more draft-forward sail shape. This gives the boat forward driving force and helps it get up to speed.

## Putting theory into practice

When your sense of feel or your instruments say you need more speed, there are several things you can do:

1) Bear off a little. It is very difficult, and time-consuming, to accelerate while sailing your normal close-hauled angle, especially if you are in disturbed air or water. So "press" on your jib a bit by heading off until the windward telltales just stop lifting.

2) Trim your sails "to course." As the helmsperson bears off to build speed, the trimmers should simultaneously ease sheets, drop the traveler to leeward and,

## A. Increase the sail's camber

Flat shape



Deep shape



A deeper sail is more powerful and will help the boat get going. Ways to increase a sail's depth include easing the backstay/runner, reducing luff tension, easing the outhaul and moving the jib/genoa lead forward.

if possible, move the jib lead forward and/or outboard. This will minimize stalling and maximize driving force.

3) Increase the depth, or camber, of your sails. This usually helps the air flow attach to the sail, which generates power (*Diagram A*).

4) Move the draft forward in your sails (especially in your jib or genoa). In addition to providing more forward power, this gives you an easier steering groove and allows you to build speed even in variable conditions. Of course, it hurts pointing, but that isn't important when you're accelerating (*Diagram B*). •

## B. Move the sail's draft forward

Draft aft



Draft forward



To get more driving force, move the sail draft forward by straightening your mast some and/or by sagging the headstay more. You can also add a little luff tension,

## TIPS

At the start, the best time to accelerate is *before* the gun, when you can bear off and build speed without worrying about losing distance to windward. Try to be at, or above, full speed at the gun.

■ Don't wait until *after* you hit bad waves to shift into acceleration mode. Be sure to bear off and ease your sails (etc.) *before* your bow hits the first wave.

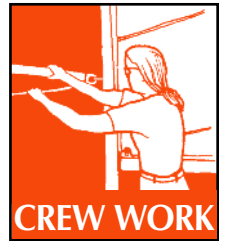
■ In light air and/or wavy conditions, you might need to be in acceleration mode (i.e. using fuller, draft-forward sails and sailing wide angles) most of the time.

■ When conditions are changing, make sure you continuously shift gears – into and out of acceleration mode – just as you'd do when driving a car in traffic.



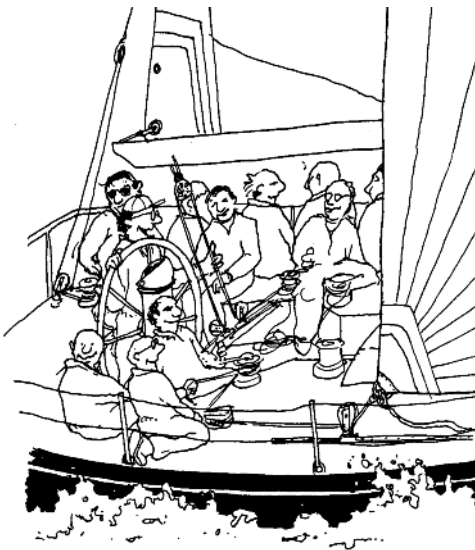
*Why, when and how to:*

# Hold a crew meeting!



Think back to the last big race in which you crewed. When the starting gun went off, did you know what the course was? Did you know what strategy your team was planning to implement that day? Did you know exactly what your responsibilities were for the race?

When you hit the dock after the race, did you have a list of everything that needed to be fixed on the boat? Had you reviewed the race and identified all possible areas for improvement?



If you answer “no” to any of these questions, you should seriously consider having a crew meeting the next time you go racing.

On *America<sup>3</sup>*, we used to have two meetings every race day: one on the way out to the start and one on the way in from the finish. This is what I recommend for any crew, no matter what size boat you sail.

Of course, these meetings will range from very casual (for 2 or 3 person crews) to more formal (for larger big-boat crews). In all cases, one person should be responsible for leading the discussion (this is often, but not necessarily, the skipper or owner), and everyone should have a chance to make comments and ask questions.

## Pre-race meeting

The basic format of any pre-start get-together is information sharing. Your goal is to get all crewmembers involved in the race, and give everyone on your team the information they need to function effectively. Some topics to cover include:

- *Crew roles*
  - Assignments for maneuvers
  - Communication flow
- *Info from sailing instructions*
  - Starting procedure
  - Course options
  - Mark descriptions, etc.
  - First spinnaker set
- *Strategic information*
  - Weather forecast
  - Expected wind trends
  - Strategy for start/first leg
  - Tactical considerations

The decision about when to have this meeting depends largely on the makeup of your crew. If your crew includes new people who haven't sailed together much, hold it early on your way out to the course. This way everyone will be able to rehearse their roles mentally before sailing, and you'll have time to practice maneuvers.

If your crew doesn't need to work on roles so much, wait until closer to the start. That way you can spend more time discussing your collected wind data and strategy.

“As a crewmember, some sort of meeting before and after every race is your best chance for information, input and learning.”

☛ **Try this:** *If your skipper doesn't organize crew meetings, take a little initiative yourself. Suggest you hold a short gathering before your next race. Emphasize the benefits it will have for the boat's performance. Start off with a quick, fun meeting; if this goes well you can gradually expand it to cover more of the topics suggested above.*

In any case, some information may not become available until after the crew meeting. Be sure to share this with everyone. For example, if the race committee displays the I flag with your preparatory signal, everyone should know this because if you are over early you will head directly for one end.

## Post-race meeting

The meeting after your race may be even more important than the meeting before. Here the goal is to give all crewmembers a chance to reflect on the experience they have just been through.

I recommend doing this on the way in, while the race is fresh in everyone's minds. Time it so you are finished before you reach the dock or mooring. Some things to cover include the following:

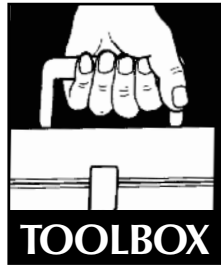
- *What went well during the race*
  - Offer specific compliments
- *What could be better next time*
  - Make positive suggestions
- *Boat maintenance ideas*
  - What needs to be fixed
  - Who will handle each item
- *Details of next race/practice*
  - Thank yous, job well done

Make sure someone takes notes during this session (ideally in the boat's “wet notes” book). And, if it's convenient, type up these notes and send them out to all crewmembers before the next race.

Make your meetings enjoyable, and don't be afraid to try new things. If you keep working at them, crew gatherings will definitely improve your boat's performance, and they'll help everyone have a

# How to get a headstart on the

One of the most important starting skills you can develop is being able to tell exactly where the line is. More often than not, most of your fleet will be late for the start.



■ A good line sight is especially important when a) the line is long; b) you want to start near the middle; or c) there's a lot of current.



■ If there are no good sights beyond the pin, you can sight the line the other way. The disadvantages of this are a) as you approach the line on starboard tack, it's harder to look over your shoulder; and b) it is sometimes hard to see through the RC boat.

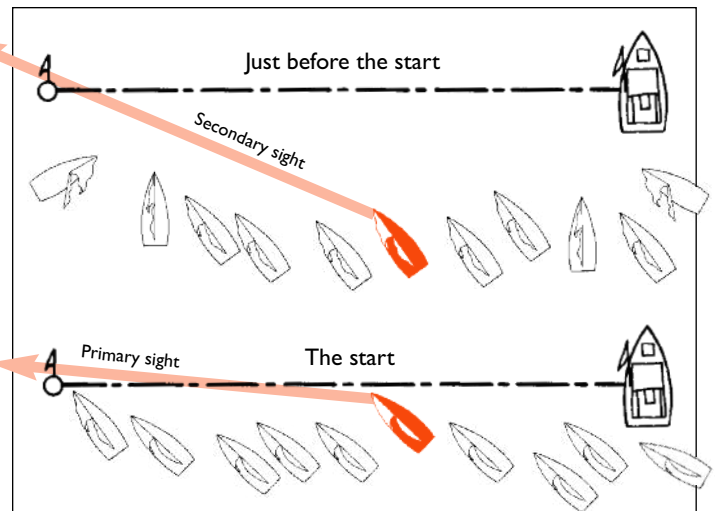
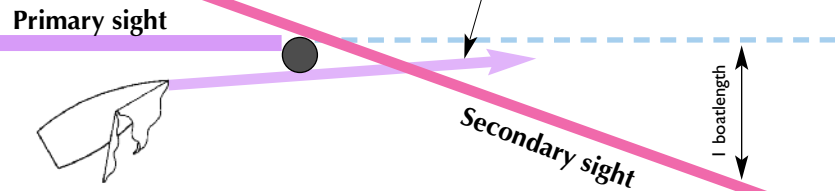
■ The race committee can move the starting line until your prep signal (5 minutes). Therefore, if you take a line sight before 5 minutes, be sure to check it within 5 minutes in case it moves.

□ If you take advantage of this, you can gain a headstart of up to several boatlengths!

The best way to know the position of the line is by using a line sight. This simple concept from geometry uses two points to define a line. By viewing the relationship of these two range points, you know exactly when you are on (and off) the starting line.

I actually recommend getting two line sights before the start. Your *primary sight* lines up the pin and the flag on the RC boat with a fixed object beyond. It's key for your position at the gun, but it won't help as you approach the line. That's why it's helpful to have a *secondary sight*, taken from several boatlengths to leeward of the committee boat. This is a "safety" sight that also tells you how far below the line you are.

Explore this page for a bunch of other ideas. ●



## Get a jump on the fleet . . .

by using your line sights to start ahead of the usual mid-line sag. Position yourself in the starboard line-up and use your secondary sight to determine how far you are from the line (top). Stay in the front row of boats, but hang back from the line, acting as if you are close to the line.

Wait until you have just enough time to accelerate and hit the line with full speed at the gun. Then sheet in and blast ahead of the boats around you. Use your primary line sight for a final check as you approach the line (above). You'll know you have a good start when the boats nearby begin yelling that you were over early, but the race committee signals "All clear!"

shore

□

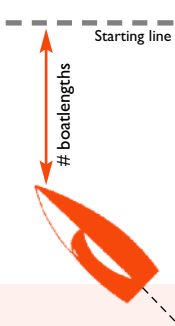
J.H. Peterson photo



## Call your start from the bow

On bigger boats, put someone on the bow during the start. This person uses hand signals to help the helmsman position the boat just behind the line at the gun (and he or she watches out for other boats as well). Make sure the bowman gets a good line sight, plus the accurate time on his or her watch.

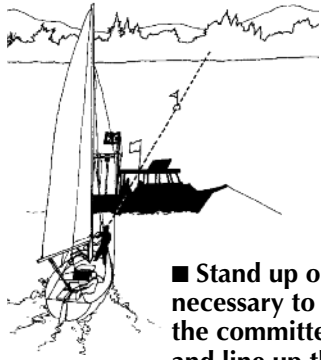
On *America<sup>3</sup>*, we found it was best for the bowperson to signal perpendicular distance to the line. Holding up two fingers, for example, means you are two boatlengths from the line. When you get good, use half fingers as well, and devise other signals to tell the driver to speed up or slow down as you approach the line.



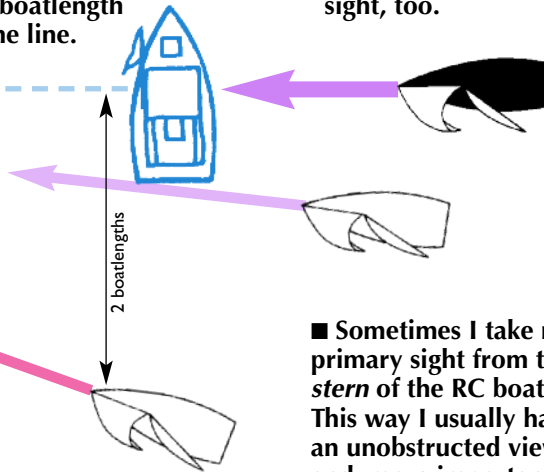


# fleet ...without being over the line early!

■ When you take your secondary sight, estimate how far you are below the line (2 boat-lengths here). Now you can figure out how far you are behind the line at different spots. For example, if you're half way down the line and lined up with this sight, you are one boatlength below the line.



■ Stand up on deck if necessary to see over the committee boat and line up the two ends of the starting line. On a bigger boat, make sure the bowman sees the line sight, too.



■ Sometimes I take my primary sight from the stern of the RC boat. This way I usually have an unobstructed view and, more importantly, a built-in safety margin.

## Practice your line calls on shore

Since you won't always have a good line sight, you should work on calling the line without one. This is something you can practice in your backyard, or at a nearby park. Pick two points (e.g. trees, lamp posts, corners of buildings) that are about as far apart as your usual starting line. Walk in between them, try to put yourself exactly on a line between the two, and drop a marker there (e.g. a hat, shoe or rock).

Then go to one end, sight this "line," and see how far off you were (it helps to have a partner who can mark the line while you are sighting). Now try it again. Then pick two new end points, and repeat this exercise until you are able to get consistently on, or within a few feet of, the line.



## Dear Dave,



**Q** In April's Interview, what does Buddy Melges mean when he says, "If you see boats on your hip looking down at you, you better keep sailing. If they're looking up, you better think about getting over there soon"? — Robert Miles, WA

Buddy uses a unique and intriguing language called "Zendanese." Here's my translation: If the "boats on your hip" (i.e. the ones to windward and aft) are "looking down at you" (i.e. aren't pointing as high), it's probably because you are on a lift, or you are sailing in more wind. In either case, your best option is to keep sailing where you are.

On the other hand, if the boats on your hip are "looking up" (i.e. they're pointing higher than you), it means you are either on a header, sailing in less wind or missing out on a persistent shift. These are all good reasons for you to tack and head the other way.

**Q** When we duck another boat, I usually ease the jib. However, in last month's Crew Work column, you recommended overtrimming the jib to help bear off. What's the right way to do this? — Robert Reichert, CT

This question doesn't have a simple answer. With the mainsail it's clear that whenever you duck, especially if it's in heavy air, you are well-advised to ease your sheet a lot.

Your jib or genoa should also be eased, in most cases, so you don't stall the sail too much. If it's windy, you may actually need to over-ease the sheet to reduce heel and weather helm. Or, in moderate wind, if you must do a very sharp turn, you might want to overtrim the jib quite a bit to help the bow turn down.

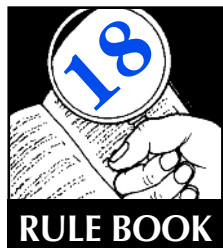
In most other cases, ease the jib with the duck. Stay a little behind the turn so the jib is slightly overtrimmed (i.e. the windward tell-tales are flying straight back). This gives the best combination of turning ability and speed.

*Your questions are always welcome. Please address emails to: "Dear Dave" and send to [speedandsmarts@optonline.net](mailto:speedandsmarts@optonline.net)*

★ *Every question published will receive a free one-year extension of a subscription to Speed & Smarts.*

# Barging Blues

There is probably not a racing sailor in this world who has not been caught barging at least a few times in his or her life. From my own experience, I can assure you that getting trapped at the committee boat is not a fun (or fast) experience.



On the other hand, I'll bet most sailors have had some successful barging experiences as well. Either you nailed another boat that tried to squeeze between you and the committee boat. Or you took the start by sneaking through a hole that someone else left!

Barging is a little like speeding in a car. If you get caught, you're in big trouble. If you don't – no problem. So your goal is not necessarily to avoid barging . . . just don't let anyone catch you.

How can you avoid the barging blues? A good understanding of rule 42(a), which describes barging limitations and obligations, is the first important step.

## When the barging rule applies

According to rule 42, when boats are rounding or passing a mark or obstruction, an outside boat must give an inside boat room to round the mark. However, there is one big exception. When the following two conditions *both* exist, rule 42 does not apply:

- You are at a starting mark surrounded by *navigable water*. For example, if you're using the end of a breakwater as one end of your line, inside boats *are* entitled to room at that end of the line (*Diagram 1*). This is a safety rule to prevent "bargers" from being forced to go aground or have a collision.

- You are *approaching the line to start*. If you happen to be sailing past the committee boat's stern with four minutes to go before your start (i.e. you are *not* approaching the line to start), rule 42 *does* apply, and an inside boat *is* entitled to room (*Diagram 2*). Note that rule 42 does not apply at a starting mark that is not also an obstruction (e.g. the leeward-end pin).

When rule 42 doesn't apply, you simply sail by all the other basic right-of-way rules.

## When you are the "bargee"

If you're approaching the line to start at a mark surrounded by navigable water, rule 42(a) says you do not have to give other boats room to pass between you and that mark (*see rule text in box*). In fact, they are windward boats and must therefore stay clear of you.

As long as you comply with all the rules that apply to a leeward boat (e.g. rules 38.1 and 38.2), you may luff head to wind to keep other boats from passing between you and the stern of the committee boat

(*Diagram 3*). Of course, you may not luff unless you have luffing rights over all boats that might be affected by your luff (*Diagram 4*).

Once the starting signal is made, you may not sail above closehauled (or, in the case of a reaching or downwind start, above the compass course to the first mark) to deny room to another boat (*Diagram 6*).

## When you are the "barger"

When you find yourself in a potential barging position, don't panic – there are actually a few things that may work in your favor. First of all, a leeward boat may never luff you faster than "slowly" (*rule 38.2*). Second, if you have mast abeam, a leeward boat may not sail above closehauled (*Diagram 4 and rule 38.1*). Therefore, be sure to hail "mast abeam" when you have it (before the start, you may need to hail "mast abeam" several times during an overlap).

Third, if a leeward boat allows you to sail into a position where you become overlapped (trapped) to

### Rule 42(a) (formerly the "Anti-Barging Rule")

Rule 42 shall not apply "a" at a starting mark surrounded by navigable water (including such a mark that is also an obstruction) when approaching the starting line to start until clearing the starting mark. However, after her starting signal, a leeward yacht shall not deprive a windward yacht of room at such a mark by sailing either:

- i) to windward of the compass bearing of the course to the next mark; or
- ii) above close-hauled."

leeward of the committee boat (*Diagram 5*), they may not begin luffing at that point and claim you are barging. Rule 40.2 says that if you hail "Obstruction" (which means an obstruction limits your ability to keep clear), the leeward boat must give you room to pass the committee boat. This is another safety rule.

Finally, as you get close to the start, remember that when the gun goes off, a leeward boat may sail no higher than closehauled to deny you room (*Diagram 6*). Sometimes you will find just enough space to squeeze between a leeward boat and the committee. ●

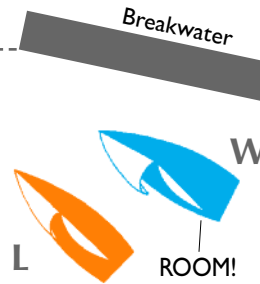
**Comment:** *There are strong tactical and strategic reasons to avoid any possibility of barging in the first place. Tactically, the committee boat is usually a magnet that draws a crowd. This makes it very difficult to get a good clear-air start, especially when you factor in the risk of being caught barging.*

*Strategically, starting all the way at one end reduces your options greatly. You are basically committed to the right side of the fleet, which means it is tough to take advantage of wind oscillations or work your way left if necessary.*

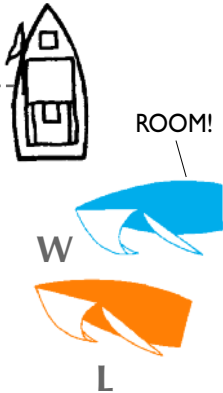
*Therefore, unless the committee boat end of the line and the right side of the course are extremely favored, I wouldn't get close to a barging position.*

# Six barging situations

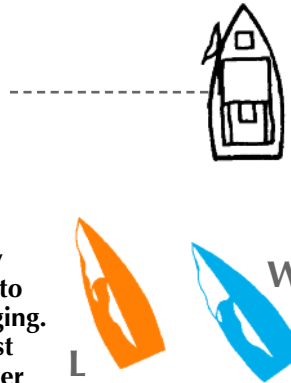
**1** If either end of the starting line is *not* “surrounded by navigable water,” then rule 42 *does* apply. An inside boat (W) is entitled to room at that end, and barging does not exist.



**2** If the boats are *not* “approaching the line to start” (i.e. there’s quite a bit of time left before the gun), rule 42 *does* apply, and L must give W room to pass below the RC boat (which is an obstruction).



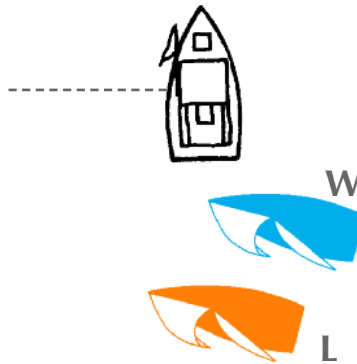
**3** If L has luffing rights, she may luff head to wind to keep W from barging. However, she must never luff any faster than “slowly.”



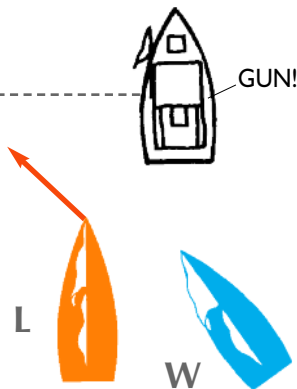
**4** When W has mast abeam, M may not sail above closehauled to keep W from barging. Even though L has luffing rights on M, L may not luff because L doesn’t have luffing rights on W (see rule 40.3).



**5** If L allows W to reach the position shown, L may no longer luff to keep W from barging. This is because an obstruction prevents W from responding. If I were W, I’d hail “Obstruction” to curtail L’s luff (see rule 40.2).



**6** Once the starting signal is made, L may no longer sail above closehauled to keep W from barging.



## QUIZ ANSWER

*Not updated for current rules!*

There are five or six times when the rules require that you hail another boat, or respond to a hail:

1) **Protest** – When you intend to protest during a race, you must hail “Protest” (or words to that effect) immediately (rule 68.2);

2) **Mast abeam** – When a windward boat hails “mast abeam,” you must not sail above closehauled (before the start) or above your proper course (after the start) (rule 40.1);

3) **Obstruction** – When a windward boat hails that an obstruction, a third boat or another object limits her ability to keep clear, you must stop your luff and give her passing room (rule 40.2);

4) **Room to tack** – If you are closehauled and you need room to tack at an obstruction, you must hail the other boat (rule 43.1);

5) **You tack** – If another boat hails for room to tack but you do not wish to tack, you must hail “You tack.” Then you must stay clear and the other boat must tack immediately (rule 43.2b);

6) If you are anchored or aground, you must “indicate” that fact to any boat in danger of fouling you (rule 46.4). The rule says a hail is “sufficient indication.”

In general, the rules minimize hailing requirements due to potential problems with different languages and the difficulty of hearing hails on the water. That’s why there are only five or six. However, I recommend at least two others:

**Starboard** – This is a courtesy call that helps make racing safer and more enjoyable; and

**Overlap or No overlap** – When approaching a mark or obstruction, this call will help sort out who is, and isn’t, entitled to buoy room. I suggest making this hail *before* you reach the two-boatlength circle to establish the overlap situation for the purpose of rules 42.1(c), 42.1(d) and 42.3.

*Not updated for current rules!*



# Countdown to a smart start . . .

No matter how early you leave the dock, the final 10 minutes before the start can be pretty hectic. That's when the boats crowd together, and your adrenaline starts pumping. Fortunately, there are a few things you can do to keep things under control: Keep a good lookout for other boats. Take a deep breath. And use this list to make sure you get the most out of every minute before the gun goes off.



- |   |  |
|---|--|
| <p><b>10</b> <input type="checkbox"/> Stay near RC boat to get 10-minute signal.<br/><input type="checkbox"/> Set your watch by visual signal, not sound.<br/><input type="checkbox"/> Course must be posted with warning signal.<br/><input type="checkbox"/> Write down marks and bearing to 1st mark.<br/><input type="checkbox"/> Punch in GPS coordinates of marks.</p> <p><b>9</b> <input type="checkbox"/> Sail compass course of your first downwind leg.<br/><input type="checkbox"/> Be sure spinnaker is packed and ready to go.<br/><input type="checkbox"/> Drink some liquid and store personal gear.<br/><input type="checkbox"/> Bail or pump all water out of bilge.<br/><input type="checkbox"/> Set double-ended controls even on each side.<br/><input type="checkbox"/> Make sure your protest flag is handy.</p> <p><b>8</b> <input type="checkbox"/> Check which end of starting line is "favored."<br/><input type="checkbox"/> Only go head-to-wind when you're in clear air.<br/><input type="checkbox"/> Always luff from starboard tack to keep rights.<br/><input type="checkbox"/> Sail outside the committee boat end and get a "line sight" on shore by lining up the RC starting flag with the leeward end pin.</p> <p><b>7</b> <input type="checkbox"/> Make sure all crew know important race info.<br/><input type="checkbox"/> Stand up and look at the wind to windward.<br/><input type="checkbox"/> Based on new info, modify strategy if necessary.<br/><input type="checkbox"/> Locate the first mark visually if possible.<br/><input type="checkbox"/> Have all crew do a quick muscle stretch.</p> <p><b>6</b> <input type="checkbox"/> Use the cylinder drop to check your watch.<br/><input type="checkbox"/> Check your rudder, keel, centerboard for weeds.<br/><input type="checkbox"/> Be sure your prop is feathered and centered.<br/><input type="checkbox"/> If necessary, you can paddle, scull or run your engine for 1 more minute (until the prep gun).<br/><input type="checkbox"/> Use the five-minute gun for a practice start.</p> | <p><b>5</b> <input type="checkbox"/> Re-check your watch with hoist of prep signal.<br/><input type="checkbox"/> After prep signal you can be penalized for rule infringements, so keep a good lookout.<br/><input type="checkbox"/> Check the committee boat for signals such as the "I" flag (for the round-the-ends rule).</p> <p><b>4</b> <input type="checkbox"/> Check your line sight once more because the RC can move either end of the line until 5 minutes.<br/><input type="checkbox"/> Sail closehauled on starboard for 30 seconds.<br/><input type="checkbox"/> Check heading to see if wind is left or right.<br/><input type="checkbox"/> Use this time to fine-tune your sail set-up.</p> <p><b>3</b> <input type="checkbox"/> Look at the wind up the course one more time while you can still get to either end.<br/><input type="checkbox"/> Try to see a starting pattern among the fleet.<br/><input type="checkbox"/> Modify starting tactics if necessary.</p> <p><b>2</b> <input type="checkbox"/> Don't get pinned – maintain the option to tack or jibe whenever you want.<br/><input type="checkbox"/> Have your timekeeper start calling every 10 seconds (and every 5 seconds from 1 minute on).</p> <p><b>1</b> <input type="checkbox"/> If one-minute rule is in effect, stay behind the line from this moment until the start.<br/><input type="checkbox"/> Find your line sight on shore and use this to judge your position on the line.</p> <p><b>0</b> <input type="checkbox"/> Go fast! First minute after start is most critical.<br/><input type="checkbox"/> Listen and watch for individual recall signal.<br/><input type="checkbox"/> Check compass heading immediately to see if you are lifted or headed.<br/><input type="checkbox"/> Have one crew call relative speed and heading.</p> |
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