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Starting Strategies 101

Don Romard 4/9/07

Race Preparation

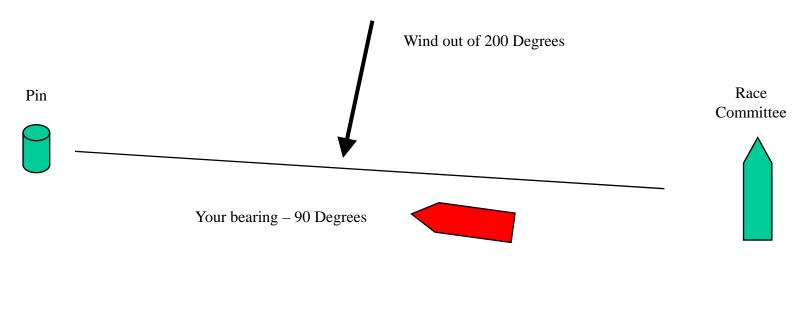
- Get out on the course early
 - An hour early is not too much, many of us have to struggle to get out there just 30 mins before the starting gun
- Where's the race committee boat?
 - Get out there, check in, and get ready!
- Where's the wind coming from?
- What course do you think will be set?
- Are the legs to the first mark even?
 - Is there a favored side of the course? In general sail the longest leg first
- Time the line
 - Run down the line and time how long it takes



Race Preparation

Compass course of the line

- While running down the line to time it, get the compass course
- If you timed the line on Starboard course, then the rule is if HTW is less than 90 degrees off your course the pin end is favored





Race Preparation

- Once the race course is set write it down!
 - Write down the compass bearings to each mark, for each leg of the race. Get the club marks into your GPS.

• Divide the line in thirds

- You figured out earlier which side of the course is favored, and which end of the line is favored
- Now decide do you want to start on the right side, the left, or the middle. In general start right to go right, start left to go left, and start in the middle to have options or to stay out of the crowd



Goals for a Successful Start

- On time at the gun
- Clear Air
 - You need clear air to sail your boat fast
 - In bad air you can't accelerate as well
- Full speed
 - You want to be going faster than your competition
 - If you can punch out ahead, you can gain clear air
- Favored End
 - Everybody knows you gain distance by starting at the favored end, expect a crowd.
- Favored Side
 - Be able to go, or tack to the favored side
 - Can be crowded at the ends, might be better to start down the line a bit



Starting will be in accordance with Rule 26 of the International Sailing Federation's Racing Rules of Sailing for 2005-2008

RACING RULE 26							
Title	Visual Signal	Sound Signal	Time to Start				
Warning	Class Flag(s) Displayed		5* minutes				
Preparatory	"P" Flag		4 minutes				
	Preparatory Flag Removed	1	1 minute				
Start	Class Flag(s) Removed		0				
	e sailing instructions	1					
	l for each succeeding class : ding class	shall be made with or after	the starting				
signal of the preceding class.							



The first flag put up will be the class flag

Class Flags:

First Class Starting

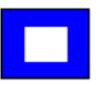
Second Class Starting:





The second flag put up will be the Preparatory flag

P Flag - used normally to signal yachts to be in preparatory phase of starting.





B Division starts first on Wednesday nights

1. Typical Wednesday Evening A/B PHRF Fleet Race

Division B will be Class 1. The Class Flag will be the number 1 pennant. Division A will be Class 2. The Class Flag will be the number 2 pennant

Signal	ACTION	RUNNING	TIME	В	A
		TIME (Mins.)		DIVISION	DIVISION
Class Flag 1	RAISE	As Listed	00:00	Warning	
Preparatory	RAISE	Plus 1	00:01	Prep	
Preparatory	LOWER	Plus 4	00:04		
Class Flag 1	LOWER	Plus 5	00:05	Start	
Class Flag 2	RAISE	As Listed	00:05		Warning
Preparatory	RAISE	Plus 1	00:06		Prep
Preparatory	LOWER	Plus 4	00:09		
Class Flag 2	LOWER	Plus 5	00:10		Start

Note: Gun will be fired or a sound signal will be made with each signal, but if the gun misfires, is late or early, the signal determines the time.



D Division starts first on Thursday nights

- 2. Typical Thursday Evening C/D Division PHRF Fleet Race
 - . Division D will be Class 1. The Class Flag will be the number 1 pennant. Division C will be Class 2. The Class Flag will be the number 2 pennant

Signal	ACTION	RUNNING TIME (Mins.)	TIME	D DIVISION	C DIVISION
Class Flag 1	RAISE	As Listed	00:00	Warning	
Preparatory	RAISE	Plus 1	00:01	Prep	
Preparatory	LOWER	Plus 4	00:04		
Class Flag 1	LOWER	Plus 5	00:05	Start	
Class Flag 2	RAISE	As Listed	00:05		Warning
Preparatory	RAISE	Plus 1	00:06		Prep
Preparatory	LOWER	Plus 4	00:09		
Class Flag 2	LOWER	Plus 5	00:10		Start



- You need a count down timer
 - A watch and/or some instruments have this feature built in
- Someone has to be assigned to watch for the flags
- Our weeknight club races start at 1900 hours
 - Unless there's a postponement (there's a flag for that too)
 - Anticipate the first signal!
- Through practice you will gain experience to reach the line on time by judging time and distance



Starting Approaches

There are many kinds of starting approaches, some better than others, some are for certain conditions

- The Reach Out and Back
- Triangle Approaches
- Port Tack Approach
- Luffing Start
- Timed Run, also known as the Vanderbilt Start
- Etc.



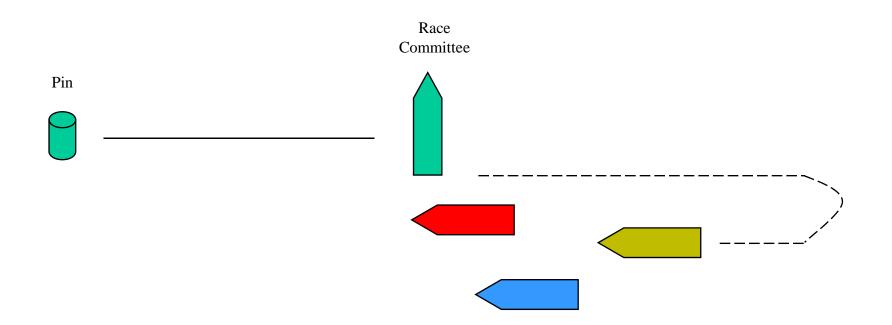
Reach Out and Back

The most popular starting approach

- Pro's
 - Simple to execute
 - Reliable judge of timing back to the line
- Con's
 - Lot's of people do it, so expect a crowd
 - Setup for barging
 - There are better ways to start



Reach Out and Back



Leave the committee boat with 4 mins remaining, subtract 30 secs for your tack, reach out for 1'45", tack, reach back for 1'45"



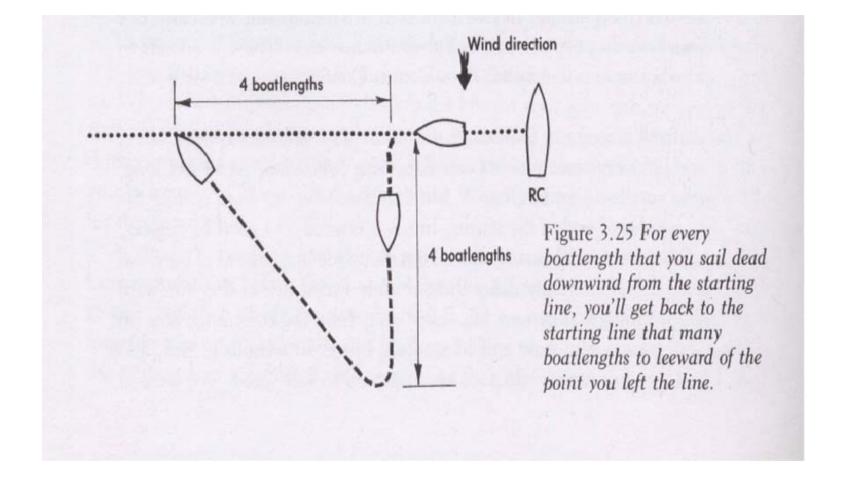
Triangle Approaches

Triangle Approaches help to Avoid Crowds

- There are lots of versions
- Basic technique is to sail a triangle with two legs of the same length (or time)
- Pro's
 - Helps to avoid the crowds
 - You initiate the triangle from the point where you want to cross the line
 - Works anywhere on the line
- Con's
 - If you are late, you might get caught up in the crowd
 - Not having much time to accelerate if you are close to the line



Triangle Approaches

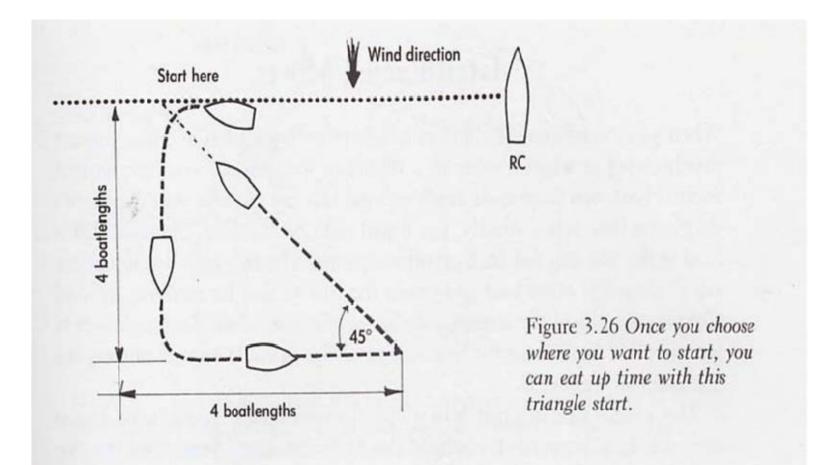


Championship Tactics, by Gary Jobson, Tom Whidden, and Adam Loory

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Triangle Approaches



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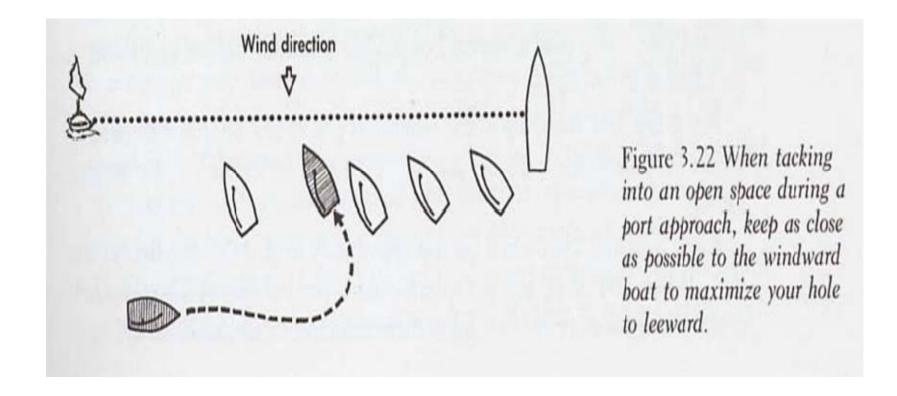
Port Tack Approach

Allows for a Pin End Start

- Pro's
 - Late setup
 - Can get you to the pin end first
- Con's
 - Lot's of them!
 - Starboard tack boats have right of way
 - Not being able to find a spot
 - Not having much time to accelerate



Port Tack Approach

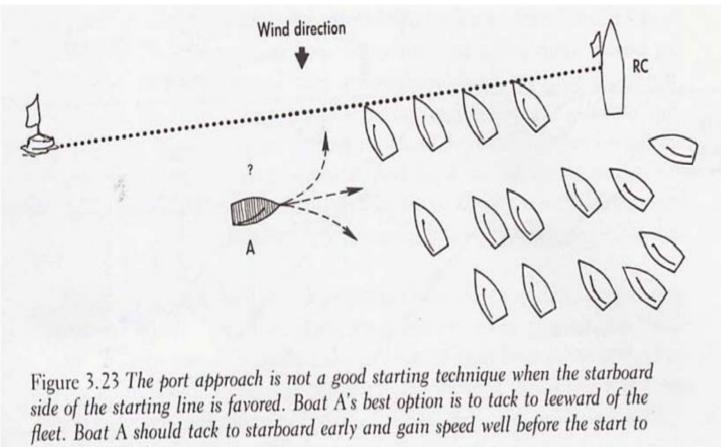


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Port Tack Approach



gain clear wind.

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Luffing Start

Allows you to secure a spot in a crowded fleet

- Pro's
 - Secure a spot on the line when the line is short and crowded
 - Good for small boats that accelerate quickly
- Con's
 - Not having enough room to accelerate
 - Faster boats can sail over or under you
 - Not practical for heavier boats



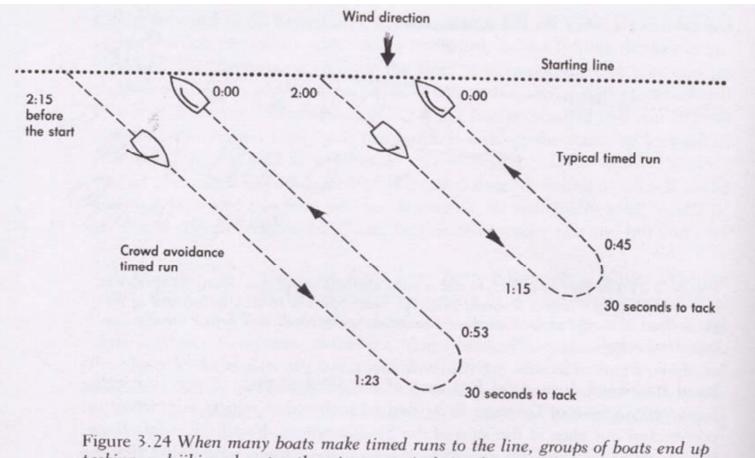
Timed Run (Vanderbilt Start)

Gets you to the line with speed at the gun

- Pro's
 - Properly executed, gets you to the line with speed at the gun
 - Final approach is on Starboard
 - Reliable judge of timing back to the line
 - For heavier boats allows time to accelerate
- Con's
 - Difficult to execute properly
 - Can be hard to find a spot to make your turn
 - In a large fleet you could be in disturbed air



Timed Run (Vanderbilt Start)



tacking and jibing close together since a typical timed run is based on leaving the line with exactly one or two minutes before the start. To avoid mixing it up with a crowd, don't sail away from the line with whole minutes to go.

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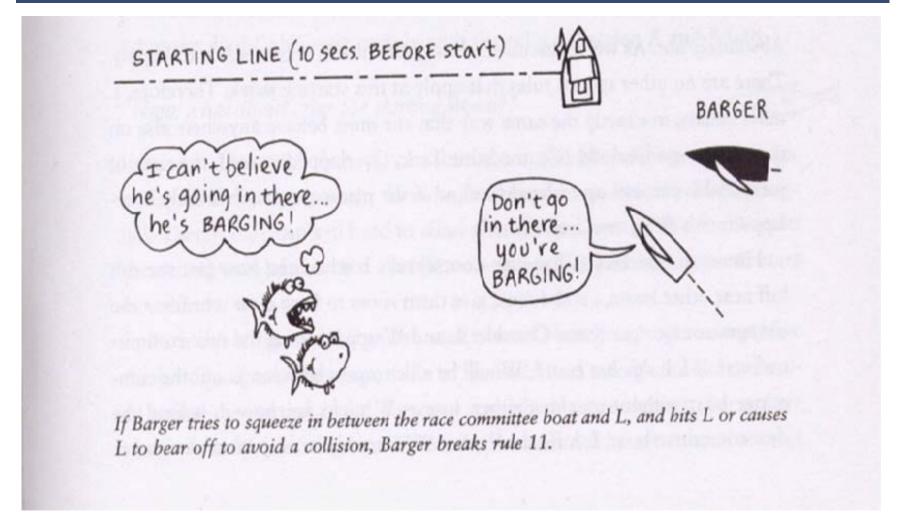
Definition of Racing

- When are you officially "Racing"?
 - "A boat is racing from her preparatory signal until she finishes and clears the finishing line and marks or retires, or until the race committee signals a general recall, postponement or abandonment."¹
 - You must have your engine off before your Prep flag!
- Prior to your starting sequence
 - "J. When maneuvering to start Boats whose warning signal has not been made shall avoid the starting area. Boats shall not hinder boats starting in divisions ahead of them. Keep clear of all boats in their prep sequence."²
- Since you are out there "Intending" to race you must adhere to the rules before, during, and after your race.

¹Understanding the Racing Rules of Sailing through 2008, by Dave Perry ²MSSA Sailing Instructions 2007



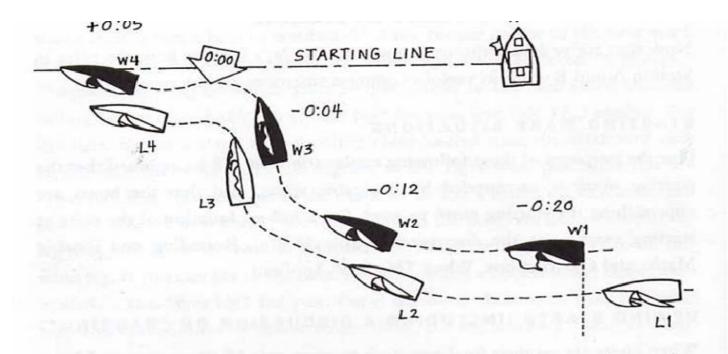
Barging



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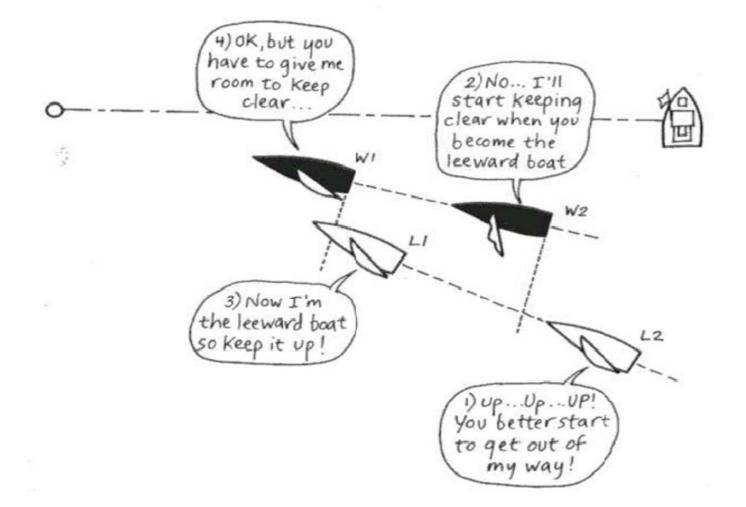
Becoming Overlapped from Astern



Before the starting signal, even though L becomes overlapped to leeward from clear astern she is permitted to sail up to head to wind provided she gives W room to keep clear. However, after the starting signal, L may not sail above her proper course which, when sailing to windward, is normally close-hauled.

¹Understanding the Racing Rules of Sailing through 2008, by Dave Perry

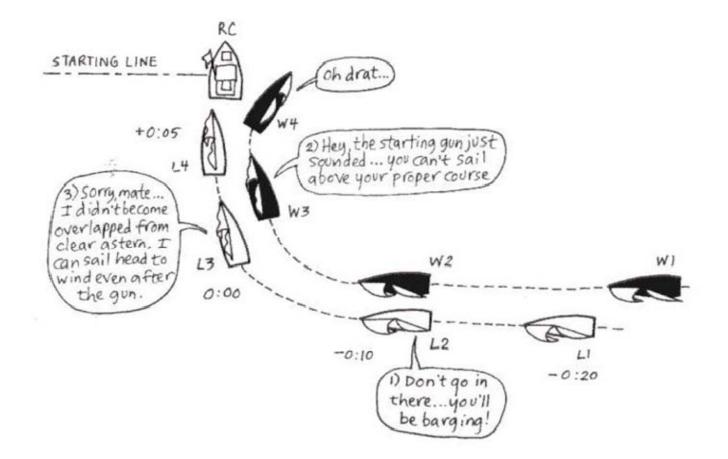
Becoming Overlapped from Astern



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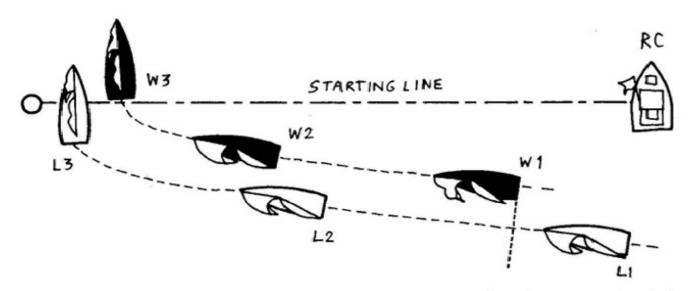
Not Overlapped from Astern



¹Understanding the Racing Rules of Sailing through 2008, by Dave Perry



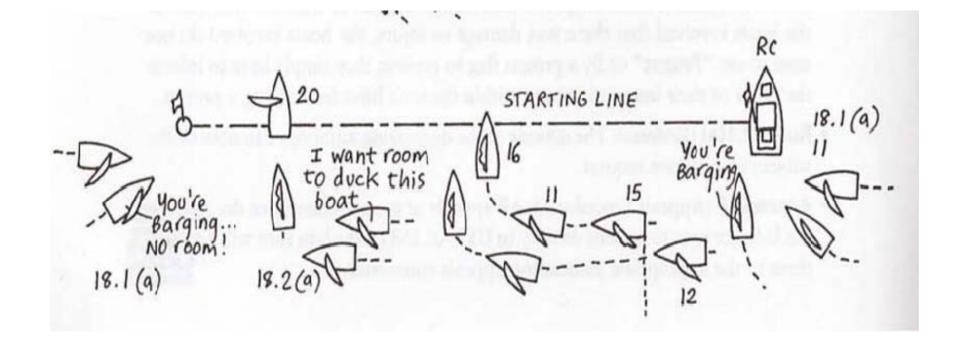
Overlapped from Astern at the Pin end



L becomes overlapped to leeward from clear astern on W. Before the starting signal she may sail up to head to wind whenever she pleases. After the starting signal she cannot sail above her proper course, which, when sailing to windward, is normally close-hauled. However, in order to pass the starting mark L's proper course may be to momentarily luff up to head to wind. In this case W must keep clear but L must give her room to do so.

¹Understanding the Racing Rules of Sailing through 2008, by Dave Perry

Overview of the Rules at the Start



¹Understanding the Racing Rules of Sailing through 2008, by Dave Perry

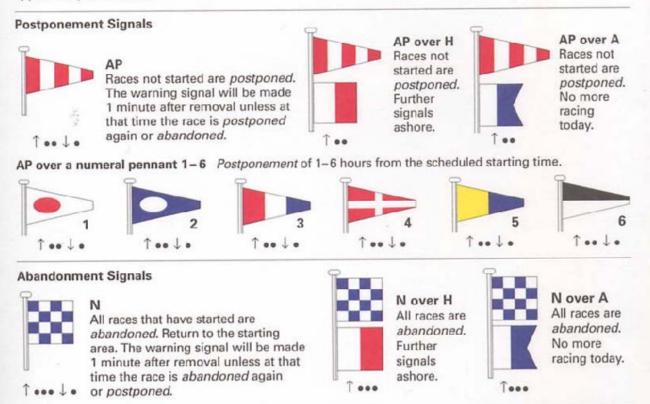


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Flags

Race Signals

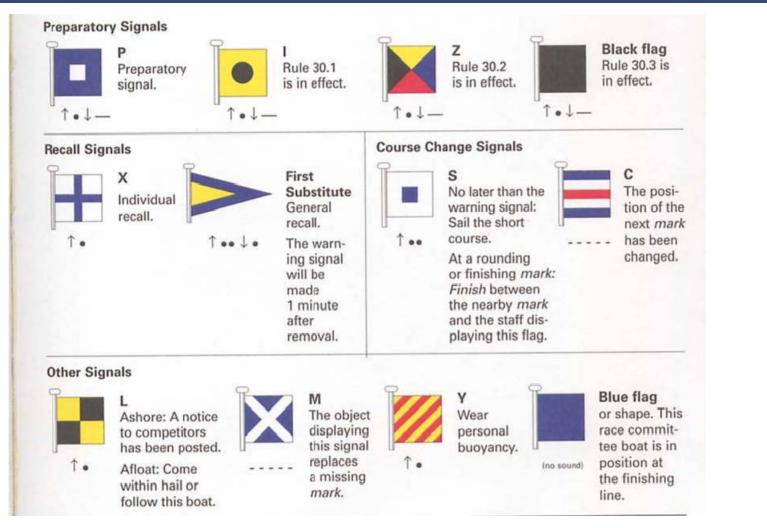
The meanings of visual and sound signals are stated below. An arrow pointing up or down $(\uparrow \downarrow)$ means that a visual signal is displayed or removed. A dot (•) means a sound; five short dashes (----) mean repetitive sounds; a long dash (—) means a long sound. When a visual signal is displayed over a class flag, the signal applies only to that class



¹Understanding the Racing Rules of Sailing through 2008, by Dave Perry

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Flags



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What has worked for me, and What hasn't!

- What has worked for me
 - Learning the starting Sequence
 - Learning the rules that apply at the start
 - Timed run start
 - Using a GPS to help estimate my ETA back to the line
 - Practicing
- What hasn't worked
 - Using the same technique in Heavy, Med, and Light air
 - Getting too far away from the line, try to stay close
- Challenges
 - Timing that turn without being in a crowd
 - Calculating your time "Trying to hit a moving target"



References

Understanding the Racing Rules of Sailing through 2008, by Dave Perry. Published by the United States Sailing Association in 2004

Championship Tactics, by Gary Jobson, Tom Whidden, and Adam Loory. Published by St. Martin's Press in 1990

