

# Race Management Review

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## Overview of Sailboat Racing

International Sailing Federation

National Authorities

United States Sailing Association (US SAILING)

Organizing Authority and the Notice of Race

Lake DuBay Sailing Association

Race Committee and the Sailing Instructions

**What is a race committee?** A team of people in charge of “managing” a sailboat race.

**What are the race committee’s goals?** To conduct an event that is fun, fair, and safe.

**What does the race committee do?**

A good RC starts on time,  
sets a good course and starting line,  
provides clear instructions and signals,  
adjusts as necessary to changing conditions,  
and takes finishes and scores the race accurately.

## **What skills are required?**

**Teamwork –Concentration--Adaptability**

**Ability to follow instructions**

## **The Signal Boat/Race Committee Boat (min of 2 people for the following duties)**

- **wind reader**
- **timer**
- **signaler**
- **souder**
- **line sighter**
- **spotter/recorder**
- **scorer**
- **Principal Race Officer**

### **Wind reader**

**Periodically observes and records the direction and velocity of the wind.**

#### **Equipment required:**

**hand-bearing compass**

**wind stick**

**anemometer**

**wind log form**

**pencil**

**clipboard**

## **Timer**

**Provides the “official” time and coordinates the synchronization of all timepieces.**

**(Use GPS time since most boats will also be using it.)**

**Calls out the times for the starting sequence precisely, providing cues for the signaler and the sounder.**

**Calls out the finish time in minutes and seconds for each boat, when the line sighter says “Mark!”**

### **Equipment required:**

sailing instructions

timer’s worksheet

clipboard

two watches

paper and pencils

## **Signaler**

**Makes sure all flags, pennants, poles, and course boards are on board and ready for use. Displays or removes flags at the appropriate times, following the timer’s call.**

### **Equipment required:**

sailing instructions

*The Racing Rules of Sailing*

cable ties

knife

flags, pennants, poles, and course boards

## **Sounder**

**Makes one, two, or three sound signals to call attention to visual signals.  
Makes other sound signals as necessary, following the PRO's instructions.**

### **Equipment required:**

**megaphone, whistles or horn with extra air canisters**

## **Line Sighter**

Sets the starting line under PRO guidance.

Watches the starting line to ensure that all boats start fairly.

When “I” is in effect calls out boats that are on the course side of the starting line after prep flag down (1 min before start). Makes sure they go around an end. Calls out boats that are on the course side of the starting line at the start. Watches to make sure they return and clear the line.

### **Equipment required:**

clipboard

paper

pencils

## **Spotter/Recorder**

Logs every significant occurrence from leaving the dock to returning.

Takes check-ins before the first race of the day.

At the start, records sail numbers of OCS boats.

Records any observed rules violations.

At the finish, records sail numbers and finish times as reported by the line sighter and timer.

Checks the list of finishers against the list of starters to identify missing boats.

### **Equipment required:**

recording sheets for start and finish

paper, pencils, and clipboard

## **Scorer**

Scores boats in accordance with the rating system in use (Portsmouth Yardstick), Sailing Instructions and the Racing Rules of Sailing and adjusts if necessary, depending on the outcome of any protest hearing. Provides results to the PRO for approval, and then arranges for posting Results on the Official Notice Board and website.

### **Equipment required:**

Completed race recording sheets with start and finish times

paper, pencils, and clipboard

Calculator/PC

Sailboat handicaps/ratings

## **Principal Race Officer**

Writes the Sailing Instructions.

Conducts the competitors meeting.

Assumes direction and responsibility for race committee personnel, equipment, and assignments.

Chooses and sets the course, following the SIs.

Makes sure the race committee complies with the SIs and the racing rules.

Makes or approves all race committee decisions.

Serves as liaison between regatta organizers, the competitors, and the protest committee.

### **PRO Equipment required:**

*The Racing Rules of Sailing*

sailing instructions

handheld VHF radio, spare batteries

cell phone

GPS, spare batteries  
hand-bearing compass  
binoculars  
course angle calculator  
wind stick and portable anemometer  
whistle on a lanyard  
watch  
clipboard, paper, pencils and pencil sharpener  
electrical cable ties

### **RC Boat**

Before leaving the dock, makes sure the boat is fueled and ready to go.  
Takes periodic wind readings (immediately after start, at middle, when 1st boat finishes).  
Maintains radio contact with the RC Chase Boat.  
Sets marks at the direction of the PRO.  
Takes finishes in the event of shortened course.  
When maneuvering, stays clear of boats that are racing.

### **Equipment required:**

air horns and extra canisters	anchor and rode
anemometer	binoculars
white boards with erasable markers	clipboards
starting flags	heaving line
duct tape, electrical cable ties	<i>The Racing Rules of Sailing</i>
hand-bearing compass	inflatable marks
mark rounding/finishing forms	knife

wind logs  
paper, pencils, clipboards  
tape recorder, spare tapes and batteries  
VHF radio, extra batteries

GPS  
sailing instructions  
watch  
whistle on a lanyard

### **Personal Equipment**

foul weather gear

water, lunch

sunscreen

digital watch

sunglasses and retainer

hat

### **Chase Boat**

Maintains radio contact with the RC Boat. Perform race course and safety activities as they become apparent, or at the direction of the PRO.

### **Equipment required:**

heaving line

knife

paper, pencils, clipboards

sailing instructions

VHF radio, extra batteries

whistle on a lanyard

### **Personal Equipment**

foul weather gear

water, lunch

sunscreen

digital watch

sunglasses and retainer

hat

## **Race day**

Oral instructions or advice by the Race Committee or official patrol



boat personnel may be given on the water to clarify visual signals, or to promote safety.

## **Preparations**

**PRO communicates with the RC**

**Check weather**

**Get equipment**

**RC meeting ashore**

**Getting under way**

## **Anchoring**

**Choose the course**

**Take wind readings**

## **Setting the Course**

**The windward mark**

**The Starting Line**

**Location**

**Length (1 to 1.5 boat lengths for each boat in race)**

**Squareness**

**The other marks**

**Alignment with Starting Line**

**Distance**

## **Before the Start**

**Take wind readings**

**Boat check-in**

**Postponement  
Abandonment**

**When to postpone, when not to postpone  
Start Race Management log**

## **Before the Warning Signal**

**Post the course**

**Make sure line is square**

**Check windward mark**

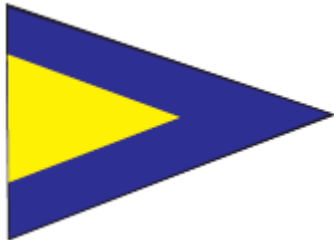
## **The Start**

<u><b>Signal</b></u>	<u><b>Flag or Sound</b></u>	<u><b>Min Before Start</b></u>
<b>ALERT</b>	<b>No flag, 2-3 long sounds</b>	<b>15-30 sec before sequence</b>
<b>Race Sequence</b>		
<b>WARNING</b>	<b>Class Flag, 1 sound</b>	<b>5 min</b>
	<b>I flag</b>	
<b>PREPARATORY</b>	<b>Prep Flag, 1 sound</b>	<b>4 min</b>
	<b>P flag</b>	
<b>ONE MINUTE</b>	<b>Prep Flag Down, long sound</b>	<b>1 min</b>
<b>START</b>	<b>Class Flag Down, 1 sound</b>	<b>0</b>

## Recalls

**Individual - call out sail number.**

**General**



1 flag

**Avoid general recalls if possible**

## Other

**Come to within hailing distance of the RC Boat.**



L flag

## During the Race

**Take wind readings (middle and at end)**

**Account for starters**

**Shorten the course      Abandon the race**

**Replace missing or out-of-position marks**

## Finishing

**Time limits**

**Recording finishes**

**Sound signals**

**End of the race day**

**Providing finishes to the scorer**

**Signaling protest time**

**Serving on protest committee**

**Putting the gear away**

## **Taxonomy of a Race Course**

When racers get together after the race they need a common language to talk about the day's events on the race course. For that matter, the Race Committee needs a way to describe the course in the Sailing Instructions and at the Skipper's Meeting. Here are some of the terms you may hear when people talk about race courses.

*Committee Boat:* The end of the starting line marked by the Race Committee boat. Usually the starboard end of the line when facing upwind. The Committee Boat flies the flags and sounds the horns to signal the racers and records start and finish times.

*Pin:* The end of the starting line marked by a buoy. Usually the port end of the line when facing upwind.

*Open Line:* Racers are allowed to cross the start/finish line during the race. This is the case unless the Sailing Instructions say otherwise.

*Closed Line:* Racers are not allowed to cross the start/finish line while racing except while starting or finishing their race. This is sometimes called a *Closed Gate*.

*Weather Mark (or Windward Mark):* The mark buoy that is the most upwind.

*Lee Mark:* The mark buoy that is the most downwind.

*Gybe Mark:* The second mark on a triangle course, where you have to gybe to stay on the course.

*Windward Leg:* A leg of the race where you must sail closehauled and tack to reach the next mark.

*Reaching Leg:* A leg where you can sail on a reach and do not need to tack or gybe to reach the next mark.

*Downwind Leg:* A leg where you must sail more or less straight downwind to reach the next mark and you may need to gybe one or more times.

*Marks Left to Port:* When you round a mark, you pass it so that the mark stays on the left side of your boat. Most fleet racing courses are designed this way, particularly for the first windward mark.

*Marks Left to Starboard:* When you round a mark, you pass it so that the mark stays on the right side of your boat. Most match-racing courses are designed this way, particularly the America's Cup.

## Setting a Course

After you have been racing a while, you will probably notice that most sailboat race courses are slight variations of a few basic themes. The starting line is square to the wind, the first mark is directly upwind from the middle of the starting line, the marks are left to port, and the course itself is a combination of triangles and straight upwind/downwind legs. While the racing rules allow nearly any shape of course, there are some good reasons why most Race Committees follow these basic guidelines.

The first rule of thumb is that the starting line should be square to the wind and square to the course to the first mark. This is true whether the first leg is upwind or downwind, but is particularly important for upwind starts. The reason is simple: if the starting line is not square then the end that is closer to upwind or closer to the first mark has a significant advantage and all of the racers will want to start in the same place. Or course, not all of the boats will fit in the same place at the same time and the result can be difficult right-of-way situations, fouls, and even collisions. Line length should be 1 and ½ boat lengths per starting boat.

The second rule of thumb is that the first leg should be upwind. First, this makes the start easier without boats going over early, but the main reason is to spread the boats over the course so that they don't all arrive at the first mark at the same time. Because racers have to tack to go up wind, the best direction to sail is a matter of opinion and fleet tends to split up on windward legs with some going more right and others going more left. The result is a less-crowded mark rounding at the weather mark and fewer chances for anyone to break a rule.

Marks are usually left to port in fleet races for a slightly different reason. When two groups of boats are approaching the weather mark with one group on port and the other on starboard tack, the mark rounding tends to go more smoothly and the rules are easier to apply if the mark is rounded to port so that the boats that do not need to tack have the right of way on the approach. If a port tack and a starboard tack boat are approaching a starboard mark rounding, the right-of-way boat (starboard) must tack in order to get around the mark. When she starts to tack, she retains right-of-way only until she reaches head-to-wind and then becomes a sitting duck for any other boat on the course, port or starboard. Once she is on port tack she regains some rights, but now she must keep clear of any boats approaching on starboard tack. The result can be real chaos if very many boats reach the mark at about the same time. Starboard roundings are used in match racing because each boat only needs to worry about one other on the course and the extra tactical complexity makes the race more interesting.

Finally, most race courses have in common the overall course design. Most race course designs, except for long-distance races, are variations of triangles and windward/leeward legs. First of all, this makes life easier for the Race Committee because they don't have to worry about accidentally breaking one of the other rules-of-thumb and in addition these types of courses are easy to set up, describe, and operate. Upwind and downwind legs provide the most opportunity for tactical decisions that allow you to pass other boats, and as a result are very popular for racing high-performance boats. The triangle course has the advantage of keeping the lead boats away from the large group of boats still coming upwind by making them sail to the gybe mark first, and it also had the advantage of keeping the boats moving on hot summer days when no one wants to sail straight downwind. For this reason a triangle is often preferred for club races and is pleasant to sail. An Olympic course where a triangle is followed by a windward/leeward lap combines the two and by the time the straight downwind leg starts, the fleet is usually spread enough to reduce the number of interactions between downwind and upwind boats.