



Introduction to Race Management

(Updated to reflect 2005-2008 rules)

Modified 05 March, 2005

GYA Race Management Seminar

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Start with this slide visible. Introduce any “VIPs” from the host club that might be present and invite them to say a few words. Then introduce yourself and any others that are assisting with the seminar.



Purpose of this Seminar

- ◆ Introduce interested volunteers to race committee duties.
- ◆ Refresh information for those already involved in race management.
- ◆ How we do the things we do.
- ◆ Why we do the things we do.
- ◆ Hopefully, learn how to do some things better!

Clarify that this is an informal seminar, NOT one of the US Sailing seminars that are required for certification.

Everyone can use a refresher



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2002 GYA Commodore Walter Chamberlain and 2002 GYA Race Management chairman Cal Jones debating the finer points of the 2001 rules as they apply to Capdevielle racing.



References

The following documents are available from US Sailing:

- JTRCT Join the Race Committee Team
- RMH Race Management Handbook
- RRS International Sailing Federation Racing Rules of Sailing.

You should have copies of each of these documents on hand and show them to the participants at this time. Make sure they are available during breaks for the participants to examine.

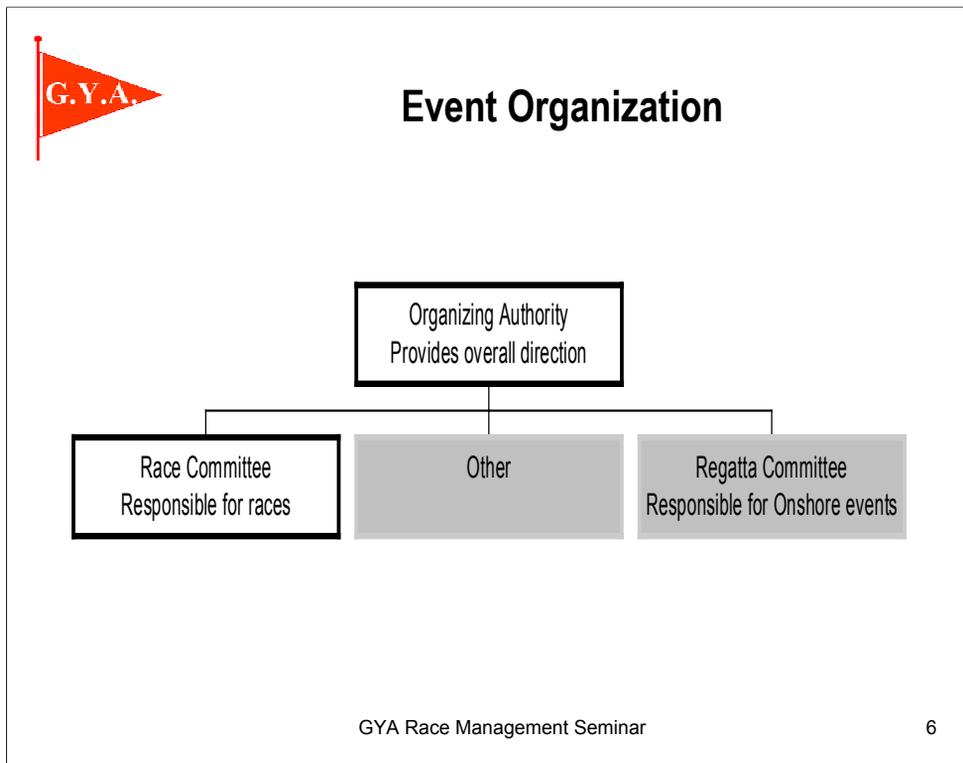


Seminar Overview

We'll briefly cover the following topics:

- ◆ Organization of the event
- ◆ Race Committee Jobs
- ◆ Race Day Preparation
- ◆ The Start
- ◆ During the Race
- ◆ After the Race

Make sure that participants understand that questions are ENCOURAGED at any point during the seminar!



The Organizing Authority is normally the the yacht club that is hosting the event. They have two primary responsibilities: (1) Publish a notice of race that conforms to RRS Appendix J1 prior to the event, and (2) provide direction to the Race Committee. For major events, the Organizing Authority may (and should) appoint a protest committee that is separate from the race committee. Note that the NOR must now describe how a competitor can obtain a copy of any rules not listed under the definition of *rule* in the RRS. This would specifically apply to events sailed under the **“GYA Regulations for Sanctioned Events”**.

The Race Committee is responsible for running the races, primarily the “on-the-water” activities and those activities directly associated with the competition.

The Regatta Committee is responsible for “on-shore” activities such as parking, social activities, housing, etc.

Other committees may be responsible for coordinating events with the normal club activities.

We’ll concentrate on the Race Committee here.



OA Responsibilities RRS 88.2

- Prepare the Notice of Race that conforms to appendix J1.
- Appoint a race committee and, when appropriate, a protest committee and umpires.

The OA provides overall guidance and direction for the event.



Notice of Race - 1

- is required (RRS 88.2)
- must conform to Appendix J1
- must be made available to the competitors before the first race (RRS 25)
- NOR Guide in RRS (Appendix K) is new

The Notice of Race is a “binding advertisement” for the event. Once published it becomes one of the rules that govern the event.



Notice of Race - 2

Appendix J1.1, requirements

Appendix J1.2, shall include...that would help competitors decide whether to attend the event or conveys other information they will need before the SIs become available

The Notice of Race must include a list of other documents that will govern the event and state where the competitors may obtain them. For example:

This event will be governed by the rules as defined in the RRS and the GYA regulations for sanctioned events (available at www.GYA.org).

The ISAF web site (www.sailing.org) has a NOR guide in MSword format available for downloading.



RC Responsibilities

- ◆ Publish written sailing instructions that conform to RRS Appendix J2.
- ◆ Conduct races as directed by the OA (RRS 89.1) and in accordance with the *rules* (RRS 85).
- ◆ Score the event (RRS 89.3).
- ◆ Safety.
- ◆ Provide required equipment.
- ◆ Provide required personnel.

The most important pre-race task for the race committee is the preparation of the sailing instructions for the event. RRS Appendix J2.1 lists the required contents and J2.2 lists the “optional” contents that must be included if they apply.

Appendix L provides a guide for the race committee in preparing sailing instructions for an event. Both the USSailing and ISAF web sites provide editable documents that can be used as a starting point.



Competition Formats (RMH 5)

Fleet Racing – Bring your own boat

- ◆ Vast Majority of racing in our area
- ◆ Normally no significant issues, everyone competes

Fleet Racing – Supplied boats

Match Racing

Team Racing

This is by far the most common format for our racing within the GYA.

We will only cover this type of event in this seminar. Others are covered in the US Sailing seminars.



What do the Competitors Expect?

PERFECTION!

While your event might not be an America's Cup competition, the competitors do expect that the Race Committee will run a first class event with no mistakes. To this end it's important that each and every member of the Race Committee Team understands his or her job thoroughly and has the proper equipment to perform that job.



Race Committee Jobs

We'll go over the various functions that the race committee personnel perform in this section.



Race Committee Jobs (JTRCT)

Recorder/Spotter (pg 25)
Sounder (pg 23)
Signaler (pg 21)
Line Sighter (pg 14)
Timer (pg 27)
Boat Operator (pg 13)
Scorer (pg 20)
Wind Reader (pg 30)
Mark Setter (pg 16)
Principal Race Officer (pg 19)
Page references from JTRCT

All should be:

- ◆ Reliable
- ◆ Friendly
- ◆ Compatible
- ◆ Fun

Key here is that this is a TEAM.

Make sure that all are able to get along with one another.

The prime goal of the RC team is to provide fair competition to all and that requires well run races. A good race committee:

Starts on time.

provides clear and understandable sailing instructions and signals.

Sets a precise course, adjusting to weather changes.

We'll look at the individual jobs and their requirements next.



Race Committee Jobs (cont.)

Recorder/Spotter (pg 25)

- ◆ Should keep a record of each race, including:
 - ★ Date, time, race number, wind direction and speed of each start
 - ★ Number of starters in each class and combined total
 - ★ Competitors to be scored DNS, DNC, OCS
 - ★ Competitors to be scored DNF or RET
 - ★ Finish position of each boat
 - ★ Times for first and last boats to finish (one design) – All for handicapped classes
 - ★ Rule infringements seen
 - ★ Protest flags, "I" flags or other flags flown by competitors
 - ★ Docking time of RC boat
 - ★ Receives and logs in protests
 - ★ Records name of PRO and other recorders.

Best to have a backup of everything.

Second recorder/spotter.

Tape recorder running at the start and finish.

Get a list of competitors prior to leaving shore.

Check off each competitor seen in the vicinity of the start.

Record any missing boats.

Record all comments by the PRO and Line Sighter just prior to the start.

Verify sail numbers of boats starting.

At the finish, record the sail numbers (and times, if necessary) of boats as they finish. Record any comments by the PRO and Line Sighter.

Check the list of starters with the list of finishers and report any discrepancies to the PRO.



Race Committee Jobs (cont.)

Sounder (pg 23)

- ◆ Takes cue from the timer
- ◆ Be prepared to make up to three sounds in succession
- ◆ May use different sounds (Gun/Horn) for different signals

Signaler (pg 21)

- ◆ Know the signals as defined in the RRS Race Signals
- ◆ Make sure all flags and shapes, number boards, halyards, and poles are available
- ◆ Signaler takes cues from the PRO and the timer
- ◆ Flags & Shapes should be hoisted and dropped briskly.
- ◆ Don't forget blue shape when on station to finish.

Sounder should know the number and type of sounds required for each race signal. Backup equipment (horns and cans of compressed gas) should be available.

Don't forget to sound a gun/horn as the RC boat leaves the harbor and when it returns after racing. This is not required by the rules, but is customarily done as a courtesy to the competitors.



Race Committee Jobs (cont.)

Line Sighter (pg 14)

- ◆ Prior to the start get a comfortable position to sight the line
- ◆ Start calling OCS boats at one minute before the start
- ◆ At the start call numbers of each OCS boat
- ◆ Hail OCS boats if allowed by Sailing Instructions
- ◆ Hail boats that have returned if allowed by Sailing Instructions
- ◆ PRO will decide if recall is individual or general

If using line sighters at both ends of the line, the one on the starboard end of the line is the “senior”.

Should understand the I-Flag, Z-Flag, and Black flag rules.



Race Committee Jobs (cont.)

Timer (pg 27)

- ◆ Get a list of classes and starting sequence from SIs
- ◆ Be familiar with the clock. Have a backup available!!!
- ◆ Keep the RC team advised of time remaining to first signal
- ◆ Announce time at regular intervals
- ◆ Count loudly, clearly, and accurately
- ◆ Report any errors to the PRO immediately
- ◆ Announce next class to start as each class starts
- ◆ At the finish, record times for first and last boats (one-design) or all boats for handicap races.
- ◆ Watch for expiration of time limit (if applicable)

Timer must have the ability to remain focused during the entire starting sequence(s). Distractions during this time must be minimized since a slight timing error that is not caught by the RC can easily ruin the race (at worst) and cause a delay for a postponement (at best).

Best to have a form with a column for the projected time for each event, as well as a column for the actual time for the event. Use this to make sure you know what's coming up next.



Race Committee Jobs (cont.)

Boat Operator (pg 13)

- ◆ Prepare for departure at the scheduled time
- ◆ Check for more than enough fuel on board
- ◆ Check that all equipment is on board and that everything is operational. Use a checklist
- ◆ Proceed to starting area per direction of PRO.
- ◆ Stop and let wind reader get accurate wind readings
- ◆ Anchor at direction of PRO
- ◆ Provide radio contact with other boats as instructed by PRO
- ◆ Follow instructions of PRO to position boat during race
- ◆ Be aware of boats wake and wind shadow while underway

Most of the above applies to all race committee boats, not just the signal boat.

Each boat should have a checklist tailored for that specific boat.

Key boats should have “redundant systems” where possible:

Spare VHF radio / cell phones

Spare GPS

Spare marks and ground tackle



Race Committee Jobs (cont.)

Scorer (pg 20)

- ◆ Prior to the start, get a “scratch sheet” for each class
- ◆ During the race help recorder/spotter or other RC as needed
- ◆ After the race:
 - ★ Calculate position for each boat in each class (handicap)
 - ★ Score each race
 - ★ Calculate series standings
 - ★ Have PRO check results
 - ★ Post results on official notice board (note if protests pending)
 - ★ Adjust results based on protest/redress hearings.
 - ★ Prepare list of winners for trophy presentation

Competitors seem to really appreciate it when the scores are posted as soon as possible after each race. In general, this is good practice in that it is inevitable that errors will be made from time to time. The RC should, of course, do everything possible to catch any errors prior to posting the results, but rest assured that the competitors will spot any such error and quickly bring it to the attention of the RC.

If the RC agrees that they have made an error, they may correct such error without the need for a hearing (since the RC does NOT make an error by correcting a previous error.)



Race Committee Jobs (cont.)

Wind Reader (pg 30)

- ◆ Observes and records wind direction (& speed) for PRO
- ◆ Know the difference between a wind shift and an oscillation
- ◆ During the race, keeps taking readings to determine if course change may be required

Mark Setter (pg 16)

- ◆ Use checklist to make sure proper equipment is on board
- ◆ Review with PRO the types of marks to be used for each course
- ◆ With the PRO, make certain that the starting line is square to the wind.
- ◆ Set additional marks as directed by the PRO. Use of GPS or good handbearing compass is extremely useful

It's quite common for there to be multiple wind readers, especially in light and/or shifty conditions. Frequently the boat that is used to set the weather mark will also be providing wind readings to the PRO continuously during the race.

There are often several mark set boats.

One setting the start line and leeward mark.

Another setting the windward, gybe, and finish marks.



Race Committee Jobs (cont.)

Principal Race Officer (pg 19)

- ◆ Write or review the Sailing Instructions
- ◆ Post notices to competitors
- ◆ Conduct competitors meeting (if required)
- ◆ Assume direction & responsibility for personnel, equipment and assignments
- ◆ Determine course location and course selection in accordance with the sailing instructions
- ◆ Respond to changes in weather conditions
- ◆ Assure RC compliance with all rules (RRS, class & SIs)
- ◆ Make or approve all RC decisions
- ◆ Act as communications link to competitors, organizers and protest committee

Should have racing experience. Best if has experience in the class that is racing.

Must be comfortable in a leadership role.

Able to make good decisions quickly.

Knowledge of race management rules.

Must understand all RC functions.

Must be flexible and able to foresee possible required actions.

Must be calm under pressure (things don't always go right.)



Race Day Preparation

Now we'll go over the tasks that must be accomplished for a club to host a good regatta.



Race Day Preparations (RMH 10)

Check the weather:

- ◆ Newspaper
- ◆ Weather Channel
- ◆ Local television station
- ◆ VHF marine weather channel
- ◆ Internet (<http://www.intellicast.com>)
- ◆ Look out the window
- ◆ Send a boat to the course area

Best to start this early so you will be aware of how the conditions are changing as the day progresses.

Often you can get detailed information from government agencies (military, aviation, etc.) in the area.



Race Day Preparations (cont.)

Check your equipment

- ◆ Each boat's captain does his/her own
- ◆ Use checklists (RMH 9)
- ◆ Keep track of borrowed equipment
- ◆ Check each boat's systems:
 - ★ Fuel
 - ★ Engine
 - ★ Electronics (VHF, GPS, etc.)
 - ★ Food and drink

Check the OFFICIAL NOTICE BOARD.

Key here is that each "boat captain" should have a checklist for his boat. The PRO or Race Committee Chairman has too much to do to take care of all of these details.

Race Day Preparations (cont.)

RC meeting ashore:

- ◆ Early enough to get racing started on time
- ◆ Verify personnel availability, change as necessary
- ◆ Verify equipment checked; solve any problems
- ◆ Verify food and beverage for RC (& sailors)
- ◆ Review solutions to yesterday's problems
- ◆ Briefly review today's plan (# races, courses, etc.)
- ◆ Check and synchronize watches (or use GPS)
- ◆ Remind all boats to check radios/cell phones.

Here's a good chance to take care of real (and potential) problems before any boats leave the dock.

Race Day Preparations (cont.)

Check on signals made ashore:

- ◆ AP (postpone) ●●
- ◆ AP over numeral (postpone for <numeral> hours) ●●
- ◆ AP over A (no more racing today) ●●
- ◆ AP over H (further signals made ashore) ●●
- ◆ N (race abandoned) ●●●
- ◆ N over A (racing abandoned for today) ●●●
- ◆ N over H (racing abandoned – further signals ashore) ●●●
- ◆ L (Notice has been posted) ●
- ◆ Y (Competitors wear PFDs) ●
- ◆ Others only if defined in Sailing Instructions.

These are described in the “race signals” section in the back of the RRS.



The Start

Now we'll cover what needs to be done to get racing started.

G.Y.A.

Signal Visibility



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It's extremely important that the competitors be able to see the signals used to start the race. Here's a good example of a boat set up with good separation between all flags. Note that both vertical and horizontal separation is used.

The photo was taken from beyond the pin end of the starting line at the 2003 GYA Offshore Challenge Cup.



Starting Line systems - RMH chapter 11 RC Signal Boat and Buoy (or second boat)

Most common system used

Good for small and medium sized fleets

All signals from the signal boat

A mid-line buoy can be set as a guide if stated in
Sailing Instructions

In shifty winds, use a pin boat as port end to
simplify line adjustments

Use of a weight on the anchor lines is
recommended.

This is the preferred system for “well behaved” fleets of a reasonable size (50 boats or less). Coordination between boats and communication is greatly simplified.



Starting Line systems - RMH chapter 11 RC Signal Boat Anchored Mid-Line

Good for larger fleets (over 50 boats)

Good for aggressive fleets. Observed length is $\frac{1}{2}$ line.

Best with anchored boat at each end

End boats should have tall mast for line flag and long anchor rodes

Signal boat does have to be on the line between the end boats

Sailing Instructions need to be explicit regarding the definition of the line

Sailing Instructions need to change RRS 30.1 (around the ends rule)

Avoids bias from signals only at starboard end of line.

Where is PRO? (on the signal boat)

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Good alternative if the fleet is large or extremely aggressive. Drawbacks are:

1. Each "half-line" must be square. Wind shift requires moving two boats.
2. Communication to pin boats must be coordinated.
3. Requires line sighters and recorders for each side of the line.



Starting Line systems - RMH chapter 11 RC Signal Boat to Windward of Line – not anchored

Also good for large and very large fleets

Signal boat's egress needs to be understood by all

Avoids bias from signals only at starboard end

Permits use of larger boat for better signal visibility

Where is PRO? (on the starboard end boat)

We used to use this system for our Lipton Regatta, but with less than thirty boats on the line it was overkill.

Provides for much better signal visibility, but can be prone to communication problems if procedures are not well defined and understood by all.



Setting the Starting Line

This is, by far, the most important job for the RC!

- ◆ Too Short and you have many recalls and protests.
- ◆ Not square to the wind and you have all boats bunched up at one end, again, many recalls and protests.
- ◆ Too long tends to magnify any error in “squareness” of the line.

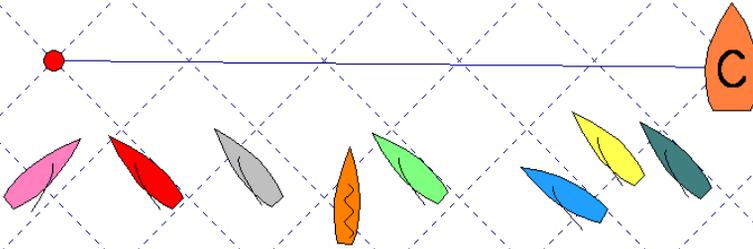
Rule of thumb: 1 to 1.5 times the aggregate length.

Low end of range for: light air, flat seas, inexperienced competitors and displacement boats.

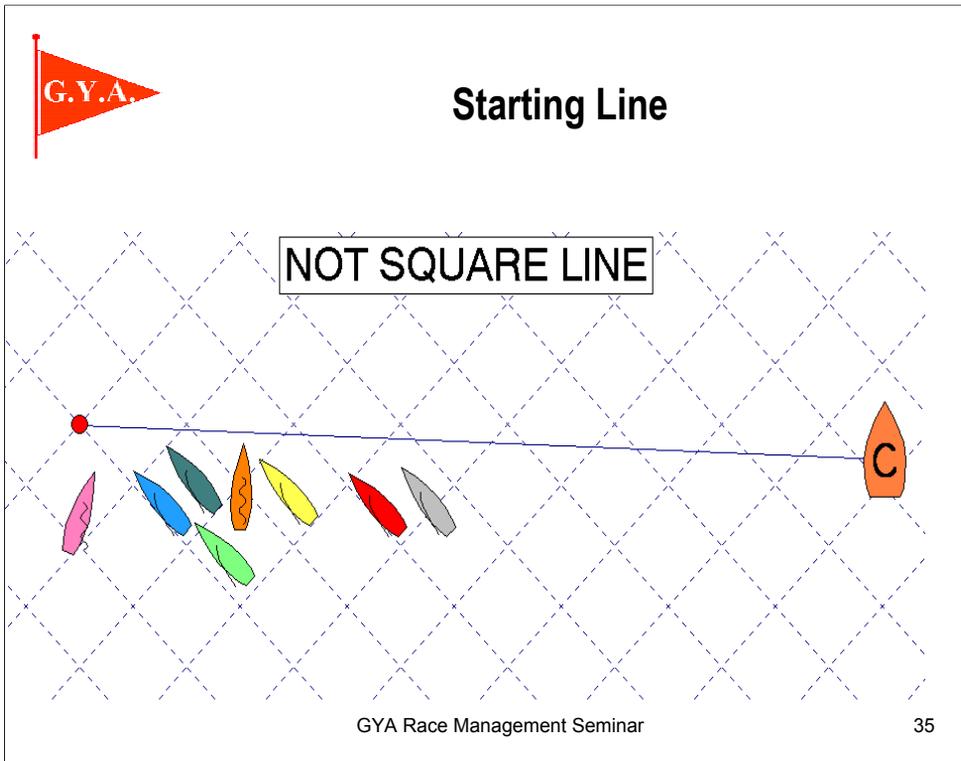
High end of range for: heavy air, big seas, highly competitive fleet, high-performance boats and multihulls.

Starting Line

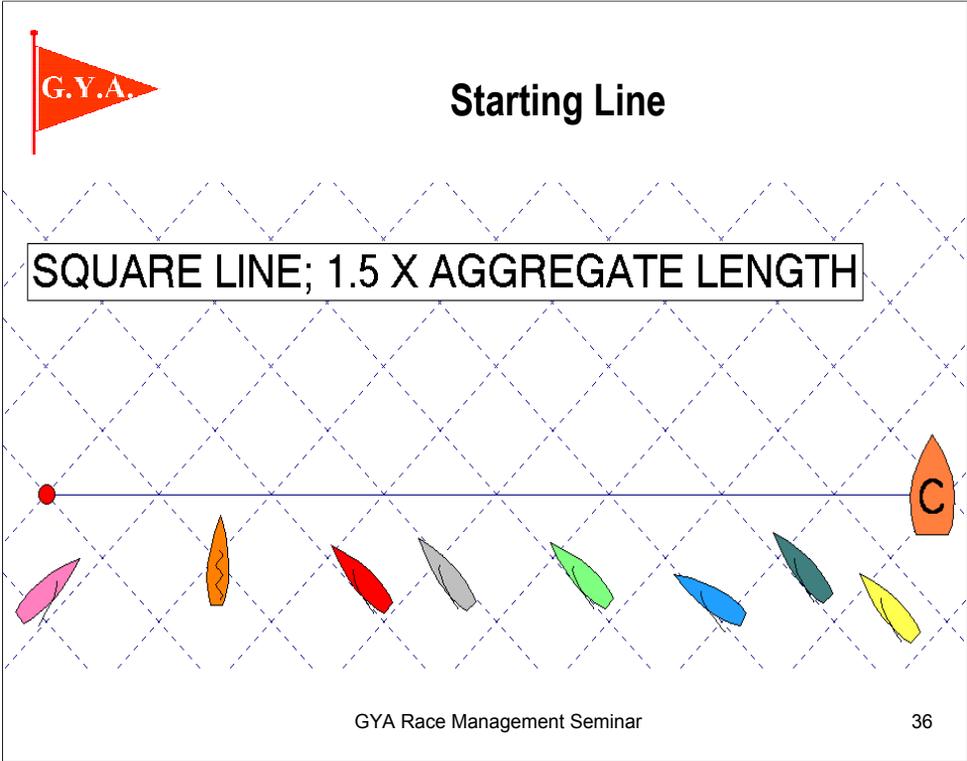
TOO SHORT; <1 X AGGREGATE LENGTH



Here there is simply not enough room for the entire fleet. Expect recalls and protests.



The entire fleet wants to start at the pin (favored) end of the line. Expect recalls and protests.

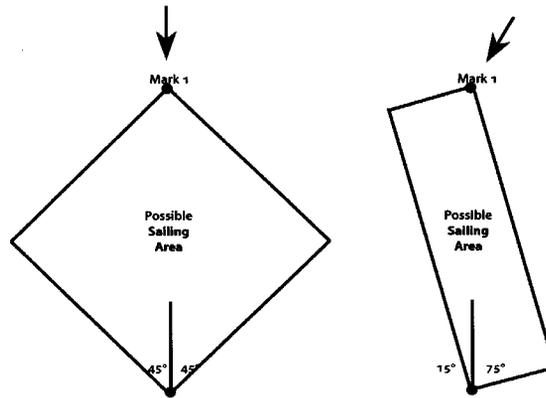


Here, there is enough room (barely) for all the boats, and they are spread out over the entire starting line.



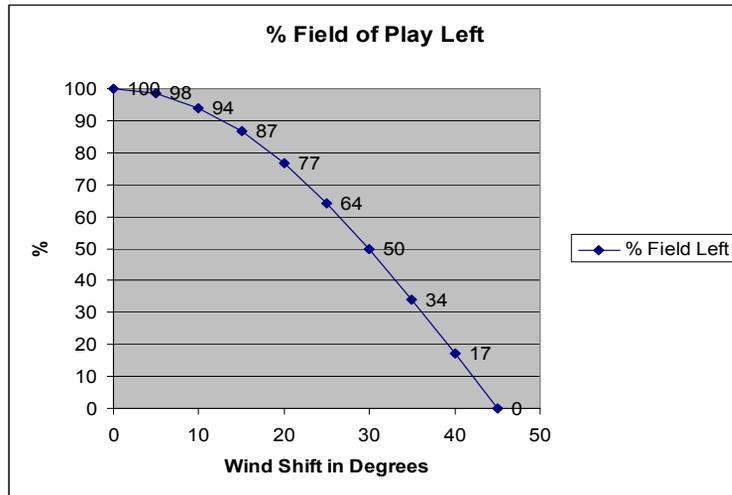
Setting the Windward Mark

Goal: equal time on each tack



Here's a copy of figure 13.1 from the Race Management Handbook. It depicts the effect of a 30 degree wind shift on the size of the "playing field" for the upwind leg.

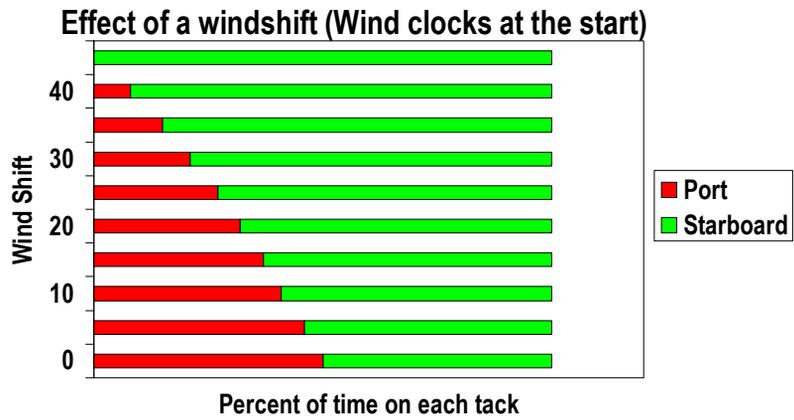
Effects of a Wind Shift



Here we see that a wind shift of 10 degrees only cuts the field of play by 6% while a 20 degree wind shift cuts it by 23%.

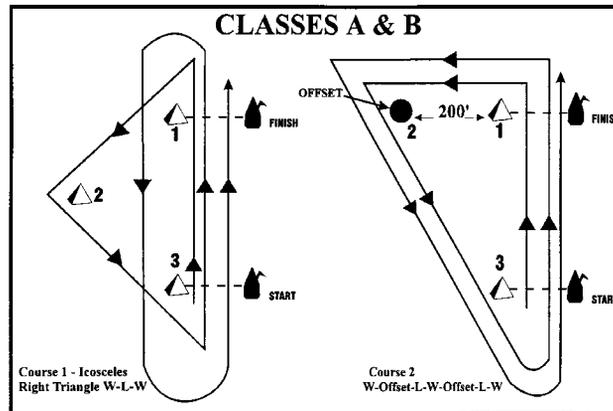


Effects of a Wind Shift (cont.)



Wind Shift	0	5	10	15	20
	25	30	35	40	45
Port		50	46	41	37
	32	27	21	15	8
	0				
Starboard	50	54	59	63	68
	73	79	85	92	100

Course Example



These are two courses from the last GYA Offshore Challenge Cup.

Classes C & D sailed the same courses except that they did not sail the final windward leg of either course.

Possible modifications:

- Change the angles in the triangle in course 1.
- Remove the offset mark in course 2.
- Position start line below leeward mark in either course.
- Position finish line above weather mark in either course.



Pre-Start Procedures RMH Chapter 12

Well before the warning signal:

- ◆ Take continuous wind readings
- ◆ Boat Check-in:
 - ★ Important for safety
 - ★ Requires Sailing Instruction
 - ★ Use code flag “L” (come within hail)



The RC should start taking wind readings well before the starting sequence to be able to identify any “long-term” trends in the wind direction.

Use of a separate check-in boat (must be described in the Sis) is extremely helpful for large fleets. This allows RC to concentrate on getting set for the race while the check-in boat handles the “paper work”.



Pre-Start Procedures (cont.)

Prior to the warning signal:

- ◆ Review starting procedure, including pin/signal boats
- ◆ Make sure all support boats are ready to set the course
- ◆ Set the starting mark
- ◆ Have the necessary signals ready to use.

It's a good idea to let all of the race committee support staff know exactly what you are planning to do shortly before going into the starting procedure. (Spectators and others in the area will also appreciate a heads-up).



Pre-Start Procedures (cont.)

At the warning signal:

- ◆ Designate the course (RRS 27.1) What is to be designated and how is specified in the SIs
- ◆ Set the course marks starting with the windward mark.
- ◆ Take wind information only by exception.
- ◆ Monitor the wind, weather and course
- ◆ Be prepared to postpone, if necessary

By this time, the RC should all be focused on their particular tasks and conversation should be kept to a minimum.

At this point we've designated the heading to the weather mark, and plan on basing the starting line on that information. Wind information should only be required if there is a shift at this point.



Pre-Start Procedures (cont.)

Before the preparatory signal:

- ◆ Verify that the starting mark is set (RRS 27.2)
- ◆ Decide if penalty flag is needed (RRS 30)
- ◆ Boats will begin *racing* and several rules will go into effect at the preparatory signal (e.g. RRS 31.1, contact with a mark and RRS 45, being “off moorings”)
- ◆ Take wind information only by exception.
- ◆ Monitor the wind, weather and course
- ◆ Be prepared to postpone, if necessary

At this point you have one minute to think over everything and make sure you are ready to go. Make sure the whole team is focused.



Pre-Start Procedures (cont.)

Before the start:

- ◆ RC can postpone or abandon for ANY reason (RRS 27.3)
- ◆ Review recall procedures
- ◆ Minimize conversation and radio communication
- ◆ Turn on the tape recorder
- ◆ Verify that all possible signals are ready, including recalls
- ◆ Start recording line sighter's observations at one minute to start.
- ◆ Remind recall signaler who will decide on the type of recall

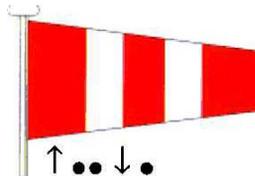
If there is a big wind shift between the preparatory and the start you'll need to postpone and reset the starting line. This decision can be delayed (if likely the wind will shift back) but don't postpone at the time scheduled for the start. Most competitors will hear the two guns (or horns) and think there is a start with an individual recall. In a large fleet it can then take a long time to get all the boats back. Much better if the postponement is made at least 10-15 seconds before the scheduled start.

A red pennant with the letters "G.Y.A." written in white on it.

Postponement

The postponement flag (code flag “AP” – the “answering pennant”) is the Principal Race Officer’s best friend.

Keep it ready to use at any time before the start!



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Best to have TWO postponement flags handy. I’ve seen (twice) an AP flag go overboard just before the start.

If this happens use the Abandon Flag – code flag N, with three horns. It will accomplish the same thing, but may be confusing to the competitors.



Postponement (cont.)

When to postpone:

- ◆ If the RC is not ready at the scheduled time for the warning (bad outcome)
- ◆ If the RC discovers, during the starting sequence, that it has made an error
- ◆ If there is insufficient wind to race
- ◆ If there is a significant wind shift during the starting sequence
- ◆ If either end of the starting line comes adrift during the starting sequence
- ◆ If the competitors are, **UNAVOIDABLY**, not going to be in the racing area by the starting signal

If there is a big wind shift between the preparatory and the start you'll need to postpone and reset the starting line. This decision can be delayed (if likely the wind will shift back) but don't postpone at the time scheduled for the start. Most competitors will hear the two guns (or horns) and think there is a start with an individual recall. In a large fleet it can then take a long time to get all the boats back. Much better if the postponement is made at least 10-15 seconds before the scheduled start.



Postponement (cont.)

When **NOT** to postpone:

- ◆ When the sound signal to accompany a starting flag fails (RRS 26)
- ◆ When some competitors are not in the starting area, but could have been

There is no requirement that the R/C wait for those that didn't make a reasonable effort to get to the race area on time. Postponing would not be fair to those who did make the effort.

The Starting Sequence

Title	Visual Signal	Sound Signal	Time to Start
Warning	Class Flag(s) Displayed	1 	5* minutes
Preparatory	 or  or  or  or  "P" Flag "I" Flag "Z" Flag "Z" Flag "I" Flag	1 	4 minutes
	Preparatory Flag(s) Removed	1 	1 minute
Start	Class Flag(s) Removed	1 	0
* or as stated in the sailing instructions The warning signal for each succeeding class shall be made with or after the starting signal of the preceding class.			

First, understand that the CLASS FLAG need not be the official flag or burgee of the class association. The sailing instructions will tell each competitor what flag will be used to signal the start of his class. Plain colored flags are commonly used.

Note that the ABSENCE of a sound signal shall be disregarded. If the sound signal is made too early or too late, you should postpone.

Advantages to this system

- ◆ Can adjust the line between classes with no postponement required.
- ◆ R/C can adjust time between successive starts at will.
- ◆ Horn at lowering of preparatory signal provides additional notification of impending starting signal.

If the starting line needs to be adjusted for a succeeding class, no postponement is necessary. When using previous System 2 with starts at five-minute intervals, a postponement was needed. The adjustment may be to change the angle of the starting line, due to a wind shift or because the RC did not get it exactly right the first time. When starting classes of substantially different sizes, the RC can change the length of the starting line between classes in order to make the line length suitable for smaller classes.

The race committee can provide for as much or as little separation between classes as it feels will provide the best racing. This includes delaying a start if there are a lot of stragglers in the preceding start, without having to postpone. When starting classes with different speeds on the same course, the intervals between the class starts can be selected individually to minimize the overlaps among fleets on the course. There is no fixed interval between starts.

By making a sound signal when lowering the preparatory signal at one minute before the start, the race committee has called attention to the impending starting signal, in the same way that the warning signal at five minutes before the start calls attention to the impending preparatory signal.



Advantages to this system (cont)

- ◆ Some flag is up throughout the sequence.
- ◆ Flags provide flexibility for display.
- ◆ Flags can be raised and lowered quickly.

Some flag is up throughout the sequence, including the last minute before the starting signal--competitors should always know what class is in its starting sequence.

The use of flags gives the race committee flexibility to display the visual signals where they will have maximum visibility. Using small diameter poles, such as bamboo or PVC, makes it easy to move the flags' location. Shapes, commonly used with System 2, were generally on halyards that were in fixed locations.

Flags on poles can be displayed or lowered quickly, which is helpful to competitors who are looking for accurate time signals.

Advantages to this system (cont)

- ◆ Class flags identify which class is currently starting.
- ◆ The same procedure is used for normal and “penalty” starts.
- ◆ There is less wasted time between warning and starting signals.

Class flags provide an almost foolproof way of letting the competitors know who is supposed to be starting. This is especially useful when the planned starting order is interrupted by a general recall or postponement, which frequently causes confusion. In this system, the class flag remains displayed throughout the starting sequence.

The race committee uses the same procedure for all starts--those with starting penalties (flag I, Z, Z and I, or black flag) and those without (flag P). This should reduce errors.

There is less “wasted” time (5 minutes less) between the warning and the starting signals vs. starting classes at ten-minute intervals. For events with several classes, this can be significant.



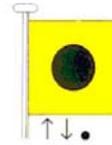
Starting Penalties

These are described in RRS 30.

Starting Penalties

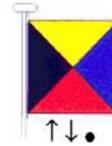
I “India” Flag (RRS 30.1):

★ “around an end”



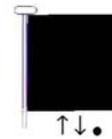
Z “Zulu” Flag (RRS 30.2):

•20% scoring penalty



Black Flag (RRS 30.3):

•disqualification



These penalties should only be used to control an aggressive fleet. The race committee should NEVER use a starting penalty to attempt to control a fleet that is bunched up at one end of the line because it's favored. In that case the line should be reset!

These penalties are graduated and should generally be used in the order show here. The black flag should only rarely be used!



RRS 26 Starting Sequence With Starting Penalties

Warning	↑ with SOUND		Class Flag			
• -5 minutes						
Preparatory	↑ with SOUND		and/ or		or	
• -4 minutes						
1 Minute	↓ with Long SOUND		and/ or		or	
• -1 minute						
Start	↓ with SOUND		Class Flag			
• 0 minutes						

Note that this sequence is exactly the same as the non-penalty sequence except that the “P” flag is replaced with a penalty flag(s).



Flag I (RRS 30.1)



Applies to boats on the course side of the starting line or its extensions during the minute before the starting signal

Penalty is to sail around either end of the starting line before starting

Discourages boats from starting aggressively in the middle of the line

30.1 Round-an-End Rule

If flag I has been displayed and any part of her hull, crew or equipment is on the course side of the starting line or its extensions during the minute before her starting signal, she shall thereafter sail from the course side across an extension to the pre-start side before *starting*.



Flag I (RRS 30.1) continued



Is “graduated”: more severe penalty for OCS boats in the middle of the line, and with longer lines

Usually works well

RC must watch carefully, and record which OCS boats go “around an end” and start

The RC must carefully track any boats that are on the course side of the line during the minute before the start to verify that they round the ends and start correctly.

If a boat was over the line at (or after) the “I” flag was lowered and returns to the pre-start side of the line without going around an end of the line, she is still subject to rule 30.1 and the RC must signal an individual recall for that boat. This is a good way to control overly aggressive fleets. The downside to this is that it makes it undesirable to be near the middle of the line at the start.



Flag Z (RRS 30.2)



Applies to boats in “the triangle” during the minute before the starting signal

Applies with no recall, individual recall, and general recall

Penalty is usually 20%

30.2 20% Penalty Rule

If flag *Z* has been displayed, no part of her hull, crew or equipment shall be in the triangle formed by the ends of the starting line and the first *mark* during the minute before her starting signal. If a boat breaks this rule and is identified, she shall receive, without a hearing, a 20% scoring penalty calculated as stated in rule 44.3(c). She shall be penalized even if the race is restarted, resailed or rescheduled, but not if it is *postponed* or *abandoned* before the starting signal.



Flag Z (RRS 30.2) continued



Penalty goes away only if the race is
“postponed or abandoned before the
starting signal”

Less harsh than black flag; keeps boats racing

Scoring code is ZFP; no hearing required
(RRS A5 & 63.1)

Can be used with flag I

Remember that a competitor that breaks is penalized under rule 30.2 still must sail back to the pre-start side of the line and start correctly. She must sail around an end of the line if the “I” flag was displayed with the “Z” flag.



Black Flag (RRS 30.3)



Does not need to be authorized by the SIs

Normally not used until I or Z have been unsuccessful

Applies to boats in “the triangle” during the minute before the starting signal

Boats subject to this rule that are “over early” are NOT subject to rule 29.1. (may not return and start correctly, individual recall is NOT signaled.)

30.3 Black Flag Rule

If a black flag has been displayed, no part of her hull, crew or equipment shall be in the triangle formed by the ends of the starting line and the first *mark* during the minute before her starting signal. If a boat breaks this rule and is identified, she shall be disqualified without a hearing, even if the race is restarted, resailed or rescheduled, but not if it is *postponed* or *abandoned* before the starting signal. If a general recall is signaled or the race is *abandoned* after the starting signal, the race committee shall display her sail number before the next warning signal for that race, and if the race is restarted or resailed she shall not sail in it. If she does so, her disqualification shall not be excluded in calculating her series score. If this rule applies rule 29.1 does not.



Black Flag (RRS 30.3) continued



Penalty is DSQ by RC; scored **BFD**

Usually works very well

Good idea to display numbers of BFD boats at the windward mark, if no general recall (put intent in SIs)

Displaying BFD sail numbers is required after a general recall or abandonment after the start

Be sure you signal the boats that were disqualified if the race is re-started due to general recall or abandonment after the start.



Black Flag (RRS 30.3) continued



BFDs go away if the race is **“postponed or abandoned before the start”**

BFDs remains in effect if race is “restarted, resailed or rescheduled”

A BFD boat that sails in the restart or resail of the race cannot exclude her disqualification; score is DNE

This should ONLY be used as a last resort and should NEVER be used without first using the “I” and/or “Z” flags to attempt to control the fleet. It should NEVER be used when the conditions that are causing general recalls are beyond the control of the competitors, such as a strong current.



Recalls



When to Signal an Individual Recall - RRS 29.2



Required when boats are subject to RRS 29.1 (OCS) or 30.1 (I flag penalty)

Not permitted for boats subject to RRS 30.2 (Z flag penalty, unless they are OCS **at the starting signal**) and never for boats subject to RRS 30.3 (black flag DSQ)

29.2 Individual Recall

When at a boat's starting signal she must comply with rule 29.1 or 30.1, the race committee shall promptly display flag X with one sound. The flag shall be displayed until all such boats are completely on the pre-start side of the starting line or its extensions and have complied with rule 30.1 if it applies, but not later than four minutes after the starting signal or one minute before any later starting signal, whichever is earlier.

Individual Recall Signals

Individual recall - flag X:

- ◆ one sound signal required when displayed
- ◆ no sound when lowered



It's important that the individual recall flag be displayed PROMPTLY with a sound signal. Any unreasonable delay will prejudice the competitor.



Individual Recall Notification

Notify OCS boats only if specified in the SIs;
default is no notification

If notifying OCS boats, get data from the pin boat if needed

Stress that notification is NOT required unless specified in the sailing instructions.



After an Individual Recall

Keep track of all OCS boats, recording when they start

Leave flag X up until all OCS boats have started, or for 4 minutes, whichever is sooner (RRS 29.1)

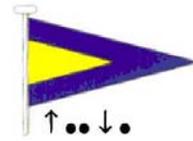
No sound when X is lowered

Signal a general recall if appropriate

There is nothing to keep the race committee from “changing” from an individual recall to a general recall if they decide that there are too many boats over early or if they discover a timing error in the starting sequence.



When to Signal a General Recall RRS 29.2



“When at the starting signal...
the RC is **unable to identify boats** that are on
the course side...
or to which **rule 30** applies
or there has been an error in the starting
procedure...
the RC may signal a general recall...”

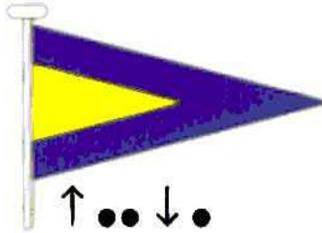
If you need to signal a general recall, try to figure out whether it was caused by:

1. An over-aggressive fleet (consider using an I, Z, or black flag)
2. Too short of a line (lengthen the line – use the P flag again)
3. The line is skewed (make sure the line is square – use the P flag again)
4. Current

General Recall Signals - RRS 29.3

General recall (1st substitute):

- two sounds required when displayed
- one sound when lowered



29.2 General Recall

When at the starting signal the race committee is unable to identify boats that are on the course side of the starting line or to which rule 30 applies, or there has been an error in the starting procedure, the race committee may signal a general recall (display the First Substitute with two sounds). The warning signal for a new start for the recalled class shall be made one minute after the First Substitute is removed (one sound), and the starts for any succeeding classes shall follow the new start.



After a General Recall

- Verify that the proper signals were made
- Check with the mark boats for wind shifts
- Decide what starting line adjustments, if any, are necessary
- Make the necessary adjustments
- Decide what you will use for the preparatory signal for the next start.

If the problem isn't obvious to you, use the sailors perception to adjust the line. If the fleet is all at the pin end of the line favor the RC boat a bit.



After a General Recall - continued

Restart the sequence by lowering the general recall signal with one sound

Next signal, one minute later, is a **warning** signal for the class that was recalled (RRS 29.2); display the class flag with one sound

Do not wait any longer than necessary



Individual vs. General Recall Decisions

Basic philosophy: avoid general recalls

RRS 29.2 says “unable to identify boats” for a general recall

RRS 29.2 says “may signal a general recall”

General recalls are not fair to the boats that start properly

Note that rule 29.3 says “boats”. The implication here is that you should NOT signal a general recall if there is only one boat that is over the line and can't be identified.

In no case is the race committee REQUIRED to signal a general recall.



Individual vs. General Recall Decisions - continued

Individual recall when there are some unidentified OCS boats is also unfair; the unidentified go unpenalized for being OCS

PRO must weigh the disadvantages of each type of unfairness

But remember, the competitors want to race, not practice starting!



Individual vs. General Recall Decisions - continued

In general, if most OCS boats have been identified,
use the individual recall

Racing is better than a succession of general
recalls



Avoiding General Recalls

- ◆ Set good starting lines
- ◆ Postpone before the start if you see that the line is not square

Setting a good starting line is the most important thing the race committee does!



During the Race



During the Race – RMH Chapter 13

Accounting for starters:

- ◆ Sometimes easier to count after the start
- ◆ Ask windward mark boat to verify the number
- ◆ Check at subsequent marks

Observing the course:

- ◆ Continue to take wind readings
- ◆ Have support boats report changes in conditions
- ◆ Record times of first and last boats at each mark
- ◆ Mark boats should record mark roundings
- ◆ Give adequate notice to support boats to implement a change of course

It's a good idea to have someone at each mark recording roundings. This is good for safety and provides valuable information in some redress hearings.



During the Race – RMH Chapter 13 (cont.)

Changing the course (RRS 33):

- ◆ Changing is permitted even if SIs are silent.
- ◆ Avoid changes due merely to oscillations
- ◆ Square runs are most important so be prepared to move leeward marks
- ◆ Length can be adjusted (+ or -) with or without a direction change
- ◆ Change is signaled at the beginning of the leg being changed
- ◆ Signaling boat displays code flag “C”, makes repetitive sounds and posts a red, rectangular board (if changing to the right), a green triangular board if changing to the left, or the direction to the new mark.) (RRS 33)
- ◆ Position of boat signaling change.
- ◆ How much of a shift justifies changing the course?

Setting a square course maximizes the “playing field” for the competitors and allows for more tactical options. See figure 13.1 – RMH 13

This is significantly more important on runs than on beats. On a beat, a 10 degree shift will have a relatively minor effect (assuming the boats sail at around 45 degrees to the wind), but on a downwind leg those same boats might not need to change tacks for the whole leg.

In the event that a mark is changed and subsequent marks are to be adjusted, the procedure should be described in the sailing instructions.

During the Race – RMH Chapter 13 (cont.)

Reasons to shorten or abandon (RRS 32):

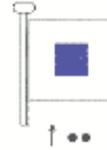
- ◆ Because of an error in the starting procedure
- ◆ Because of foul weather
- ◆ Because of insufficient wind making it unlikely that the race will finish within the time limit
- ◆ Because a mark is missing or out of position
- ◆ For any other reason directly affecting the safety or fairness of the competition

It's far better to shorten the course while there is still some wind rather than continuing and have the wind die and lose the race.

During the Race – RMH Chapter 13 (cont.)

Procedure for shortening (RRS 32.1):

- ◆ Check SIs and Class Rules for (valid) additional restrictions!
- ◆ No advance notice
- ◆ Code flag “S” with two sounds as first boat approaches
- ◆ Class flag(s) if necessary
- ◆ Note that finish line is between mark and the staff that is used to display the “S” flag when finishing at a rounding mark. (see RRS 32.2 for other cases.)



32.2 If the race committee signals a shortened course (displays flag S with two sounds), the finishing line shall be,

- (a) at a rounding *mark*, between the *mark* and a staff displaying flag S;
- (b) at a line boats are required to cross at the end of each lap, that line;
- (c) at a gate, between the gate *marks*.



During the Race – RMH Chapter 13 (cont.)

Abandonment

- Abandon and resail
- Abandon and go to shore
- Abandon for the day



N All races that have started are *abandoned*. Return to the starting area. The warning signal will be made 1 minute after removal unless at that time the race is *abandoned* again or *postponed*.

N over H All races are *abandoned*. Further signals ashore.

N over A All races are *abandoned*. No more racing today.

During the Race – RMH Chapter 13 (cont.)

Procedure for abandonment:

- ◆ Code flag “N” (or N over H or N over A) with three sounds
- ◆ Class flags if necessary
- ◆ Very difficult for fewer than all classes
- ◆ Required when no boat sails the course and finishes within the time limit (RRS 35)
- ◆ At any time, but RRS 32 requires RC to consider “the consequences for all boats in the race or series” before abandoning after a boat has finished



During the Race – RMH Chapter 13 (cont.)

Sailing the course (RRS 28.1):

- ◆ RC is NOT permitted to DSQ a boat for breaking RRS 28.1
- ◆ RC is permitted to protest a boat for breaking any rule
- ◆ RC is required to notify any boat it intends to protest, within the protest time
- ◆ A boat can correct a rule 28.1 problem until she finishes (or even after finishing if she finishes again)

Be sure that you know the definition of finish:

Finish A boat *finishes* when any part of her hull, or crew or equipment in normal

position, crosses the finishing line in the direction of the course from the last *mark*,

either for the first time or after taking a penalty under rule 31.2 or 44.2 or, under rule

28.1, after correcting an error made at the finishing line.

Any boat that meets the definition should be scored as finishing. If there are any problems, consult the protest committee.



During the Race – RMH Chapter 13 (cont.)

Touching a mark (RRS 31.1):

- ◆ Only applies when “*racing*”
- ◆ Only applies at marks that begin, bound, or end the leg on which the boat is sailing
- ◆ Know the definition of “*mark*”, i. e. not the ground tackle or temporarily attached objects
- ◆ RC may protest (RRS 60.2) but cannot DSQ without a hearing (RRS 63.1)
- ◆ RC does not have to hail or display a protest flag (RRS 61.1(b))

COMPETITORS IN THE SPORT OF SAILING ARE GOVERNED BY A BODY OF RULES THAT THEY ARE EXPECTED TO FOLLOW AND ENFORCE. A FUNDAMENTAL PRINCIPLE OF SPORTSMANSHIP IS THAT WHEN COMPETITORS BREAK A RULE THEY WILL PROMPTLY TAKE A PENALTY OR RETIRE.

Primary responsibility for enforcing the rules lies with the competitors, themselves. It's their responsibility to enforce the rules. The RC has the option of enforcing the rules.



During the Race – RMH Chapter 13 (cont.)

Outside help (RRS 41):

- ◆ What is “outside help”?
- ◆ Exceptions to RRS 41:
 - ★ Help under RRS 1,
 - ★ An ill or injured crew member,
 - ★ after a collision help from the other boat’s crew,
 - ★ Information freely available to all boats,
 - ★ Unsolicited information from a disinterested source.

41 OUTSIDE HELP

A boat shall not receive help from any outside source, except

- (a) help as provided for in rule 1;
- (b) help for an ill or injured crew member;
- (c) after a collision, help from the crew of the other boat to get clear;
- (d) help in the form of information freely available to all boats;
- (e) unsolicited information from a disinterested source, which may be another boat in the same race.

Note that any boat or person in danger may accept outside help from **another competitor** and continue to race without being penalized for breaking rule 41. (The boat that offered assistance should probably be given redress under rule 62.1 c).

During the Race – RMH Chapter 13 (cont.)

Missing or out of position mark (RRS 34):

- ◆ Best alternative is replacing it in its correct position (RRS 34(a))
- ◆ Second choice is using boat with code flag “M” (RRS 34(b))
- ◆ Repeated sound signals are required with code flag “M” (RRS Race Signals)





After the Race



Scoring Abbreviations

These abbreviations are recommended:

DNC Did not *start*; did not come to the starting area

DNS Did not *start* (other than DNC and OCS)

OCS Did not *start*; on the course side of the starting line at her starting signal and failed to *start* or broke rule 30.1

ZFP 20% penalty under rule 30.2

BFD Disqualification under rule 30.3

SCP Took a scoring penalty under rule 44.3

DNF Did not *finish*

RAF Retired after *finishing*

DSQ Disqualification

DNE Disqualification (other than DGM) not excludable under rule 89.3(b)

DGM Disqualification under rule 69.1(b)(2); not excludable

RDG Redress given

Remember that only the protest committee can disqualify a boat.

Score codes that are underlined may only be given by a protest committee.

Post Race – RMH Chapter 10

- ◆ Account for all boats (safety and scoring)
- ◆ Retrieve all marks and ground tackle
- ◆ Post protest time limits (or RC docking time)
- ◆ RC report to the protest committee (protest flags observed, etc.) Note: more than one scoring penalty per boat is possible (RRS 44.3)
- ◆ RC Actions report (DNC, DNS, OCS, ...)
 - ★ RC can score a boat DNF without a hearing (RRS A5)
 - ★ RC can score a boat ZFP without a hearing (RRS 63.1 and A5)

It's a good idea for the PRO and the chief judge to hold a short meeting shortly after the race committee returns to short.



Post Race – RMH Chapter 10 (cont.)

- ◆ Post preliminary results, if necessary
- ◆ Give results to scorer
 - ★ Include DNE, (e.g. RRS 2, RRS A5)
- ◆ Scoring inquiries
 - ★ RC can either correct errors, or ask the PC to consider giving redress (RRS 89.3 or 60.2)
- ◆ Collect written rounding and finishing data
- ◆ Identify and solve any equipment problems
- ◆ Identify and solve any personnel problems
- ◆ Identify and solve any operational problems

Scoring errors WILL happen. One of the best ways to get them identified and corrected quickly is to post preliminary results as soon as possible and let the competitors point any errors out to you. If the race committee agrees that there an error was made, they may correct the error without a hearing.

It's a good idea to to have key race committee personnel meet each day to discuss any opportunities for improvement for the next day.



Post Race – RMH Chapter 10 (cont.)

- ◆ Make any necessary changes to the Sailing Instructions or schedule
- ◆ Post any necessary notices to competitors

Note that these notices may have to be posted in a timely fashion.



Post Race – RMH Chapter 10 (cont.)

Redress hearings (RRS 62):

To be entitled to redress, the boat's finishing position in a race or series must have been made significantly worse by an improper action or omission of the RC (or for other reasons not involving the RC) and it must be through no fault of her own.

- ◆ Who represents the RC?
- ◆ Witnesses
- ◆ OCS hearings
- ◆ Tape recordings
- ◆ RC can ask the PC to consider granting redress (RRS 60.2(b))

Post Race – RMH Chapter 10 (cont.)

Update the scoring to include protest committee decisions

- ◆ RC must accept protest committee decisions and update the scoring (RRS 85) but can appeal the decision of a protest committee if it feels that it is incorrect.
- ◆ If PC DSQ's a boat, others move up (RRS A6)
- ◆ Then ...



Post Race – RMH Chapter 10 (cont.)

Enjoy (What's left of) The Party!



GYA Race Management Committee

This seminar was developed by the GYA Race Management Committee to improve all levels of race management within the GYA. Contact any member if you have questions or need assistance.

- John Morrow (StABYC, GYC) Chairman
- David Taylor (PCYC)
- John Matthews (PYC)
- Tom Batty (MYC)
- Ken Kleinschrodt (BucYC)
- Bobby Bailey (GYC)
- Chip MacMillan (NYCP, PYC)
- Bill Brundige (SYC)
- Karen Reisch (PontYC, SYC)
- Bud Thurman (GMSC)
- Jim Tichenor (HYC)