



SMSA
Race Management Training

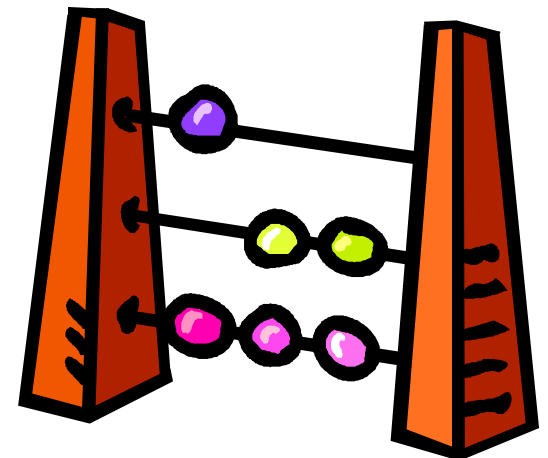
Starting and Finishing Races

- - -

Scoring the Races



Keith Jacobs
US Sailing Certified Club Race Officer





Topics

- Importance of GPS Time
- Assignment of Responsibilities
- Course Selection
- Starting Races
- Warning Signal
- Preparatory Signal
- Classes Start Order
- Calling the Line
- Individual Recall
- General Recall
- Appendix S
- How to Record Finishes
- Determining Course Length
- Scoring



Importance of GPS Time

- Today, GPS time is the de facto time measurement system within the sailing community
 - Everyone can be on the same time-tick
- Time throughout the RC and the competitor fleet is identical
 - Wristwatch oscillators are known to drift over time
 - Some manufacturers note ± 10 seconds in a 30-day period
 - **ALWAYS** synchronize your watch before leaving the dock
 - Very beneficial when competitors must record their own finish times, such as the Middle Distance Races
- Receivers – both ship's units & handhelds – are widely available & relatively cheap
 - Today, there are wristwatches available that synchronize nightly to the GPS time signal from Fort Collins, CO



Assignment of Responsibilities

- Assigning jobs to each member of the RC Team is one of the most important tasks
 - Need to consider each person's strengths & weaknesses
- Generally, there are more tasks than RC volunteers
 - However, people should be able to “multi-task” and cover a few jobs
 - For example, the Signaler could take wind readings before & after the start sequence
- It's important to have enough people on the RC boat to help with all the tasks
 - However, there is such a thing as “too many” helpers



Assignment of Responsibilities

- Committee Boat Operator
 - Responsible for operating & equipping the RC boat
 - Ensure the RC boat is ready for the day's work
- Line Sighter
 - Sights the starting line & identifies OCS competitors
 - Makes the call for "Individual Recall" or "General Recall"
 - Sights the finish line & determines the order of finish
- Mark Setter
 - Positions, sets, & relocates marks on the course
 - Monitors wind conditions (speed & direction) & keeps the PRO informed



Assignment of Responsibilities

- Principal Race Officer (PRO)
 - The “CEO” of the RC Team
 - Makes the major race management decisions, within the provisions of the RRS & SIs
 - Has overall responsibility for all aspects of the race event
- Scorer
 - Tabulates points & finishing times for all competitors
 - Calculates handicaps, if required
 - Incorporates Protest Committee results, if required



Assignment of Responsibilities

- Signaler
 - Verifies that all required flags/pennants are available & ready to be hoisted
 - Class flags, Prep flags, Postponement, Recall flags, Shorten Course, etc.
 - Provides visual signal information to competitors from the RC boat
 - Status within the start sequence, Follow Me, Postponement, etc.
- Sounder
 - Makes sound signals to draw competitors' attention to the visual signals
 - Gun, air horn, whistle, etc.
 - A hail or shout from the RC is **NOT** a sound signal



Assignment of Responsibilities

- Spotter-Recorder
 - Identifies & records all boats starting & finishing
 - Notes all boats who do not compete in a race
 - Records observations made/reported during the race
 - Boat X hit the leeward mark, Boat Y flying "B", Boat Z retired, etc.
 - Always record the time of the incident
- Timer
 - Ensures their watch is synchronized to GPS time
 - Using GPS receivers instead of a watch is not recommended since they are known to occasionally "skip" seconds due to signal processing
 - Calls the countdown sequence aloud for the start & the finish
- Wind Reader
 - Observes & records wind direction & speed



Course Selection

- The course – and its length – should be considered for each class that has a start
- You have the flexibility to post a different course for each starting class
 - RRS 27.1 requires the course to be posted by the Warning signal
 - There is no requirement to roll starts
 - There is no requirement to keep subsequent starts on a 5-minute “time tick”
 - Although, it can help both the timer & the competitors keep track of where they are in the countdown



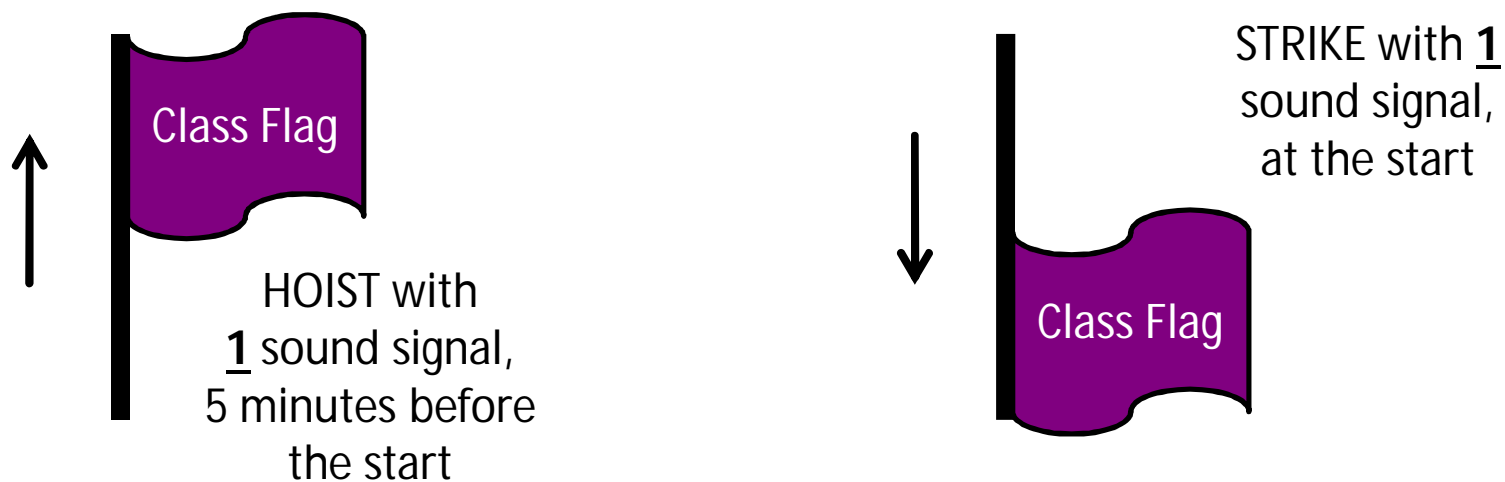
Starting Races

- Races started in accordance with RRS 26
 - Also known as 5-4-1-GO!
- The Warning period begins at 5 minutes before the start
- The Preparatory period begins at 4 minutes before the start
 - Penalties signaled during the Preparatory period go into effect at 1 minute before the start



Warning Signal

- The course must be displayed no later than the warning signal
- For a race with multiple classes:
 - “The warning signal for each succeeding class shall be made with or after the starting signal of the preceding class.”
 - You may roll the starts – but it is not required
 - Consider the wind & sea-state conditions when deciding whether to roll the starts

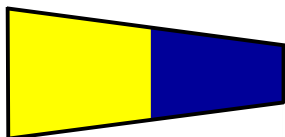




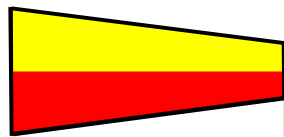
Warning Signal

Class/Warning Flags for Wednesday Night Informal Racing

Non-Spinnaker
All PHRF Ratings



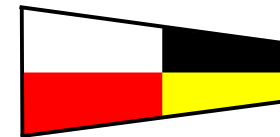
Spinnaker - C
PHRF ≥ 146



Spinnaker - B
PHRF 110-145

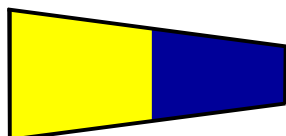


Spinnaker - A
PHRF ≤ 109



*May Be Consolidated into 1 or 2 Starts, Depending Upon
the Number of Boats That Show Up for That Evening*

Class/Warning Flags for Weekend Formal Racing



Non-Spinnaker
All PHRF Ratings

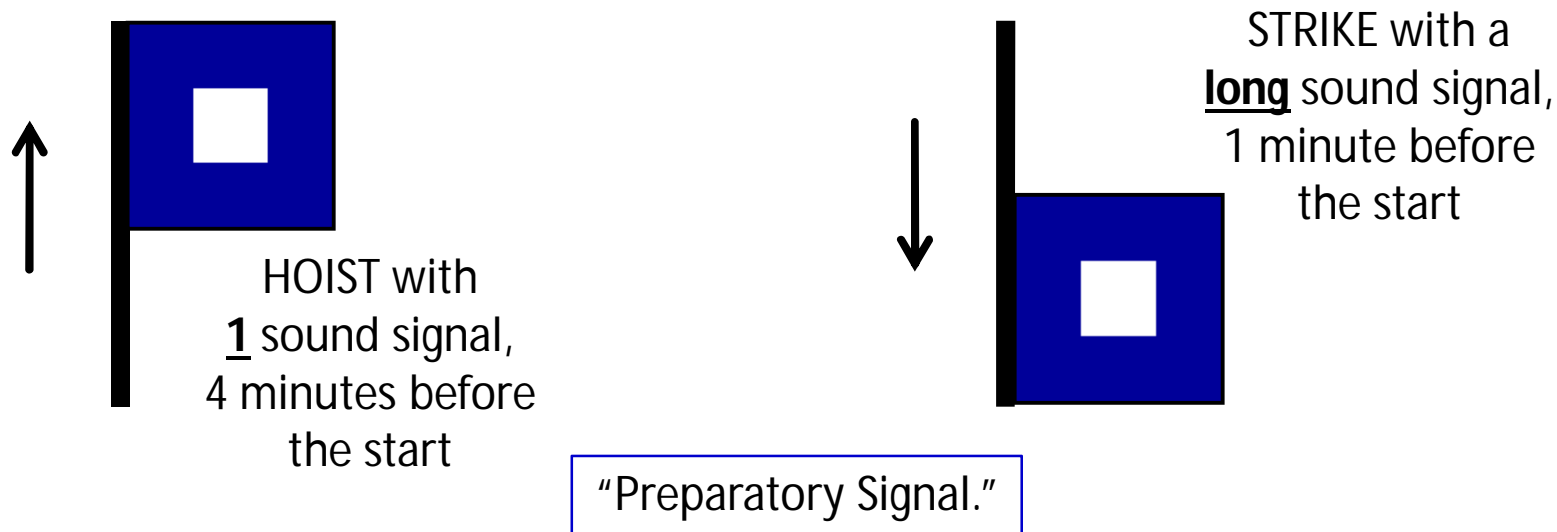


Spin A-C
All PHRF Ratings



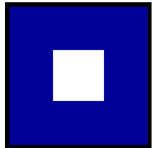
Preparatory Signal

- Starting marks must be set by the time of the preparatory signal
- There are 5 allowable preparatory signals
 - There are also 4 penalty signals that may be used in lieu of the “P” flag
 - Used to help control overly aggressive classes
 - Typically invoked in an ascending order of severity following General Recall(s)





Preparatory Signal



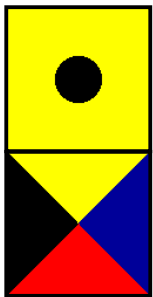
Routine Preparatory Signal. There are no penalty conditions in effect.



Penalty Preparatory Signal, RRS 30.1. The Round-An-End rule is in effect.



Penalty Preparatory Signal, RRS 30.2. The 20% Penalty is in effect.



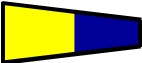
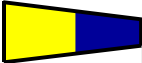





Penalty Preparatory Signal, RRS 30.1 & 30.2. Both the Round-An-End Rule & the 20% Penalty are in effect.



Penalty Preparatory Signal, RRS 30.3. The Black Flag Rule is in effect; immediate disqualification upon violation.



Classes Start Order

- Frostbites
 -  Non-Spin 1300 Warning; 1305 Start
- Wednesday Nights
 -  Non-Spin 1825 Warning; 1830 Start
 -  Spin - C Check SIs for times
 -  Spin - B Check SIs for times
 -  Spin - A Check SIs for times
- Weekend
 -  Non-Spin Check SIs for times
 -  Spin (A, B, C) Check SIs for times



Calling the Line

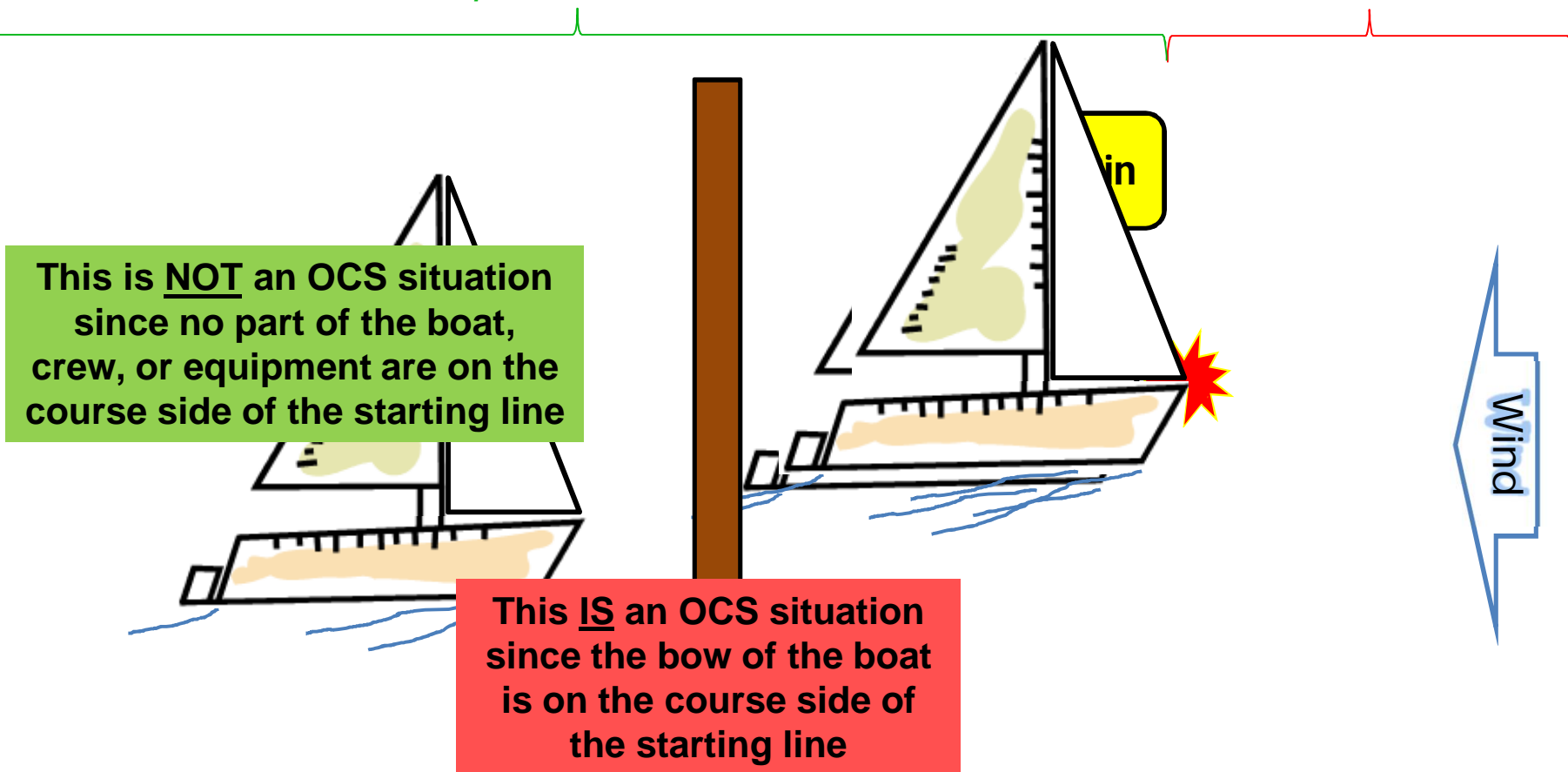
- At the START
 - The “starting line” is the plane that extends from the course-side edges of the two items marking the ends of the starting line
 - “Items” = Halyard, Pole, Inflatable Mark, Buoy, etc.
 - A boat is considered “On Course Side” when at her starting signal, “any part of her hull, crew, or equipment is on the course side of the starting line”



Calling the Line

Clear, or Pre-Start Side

Course Side



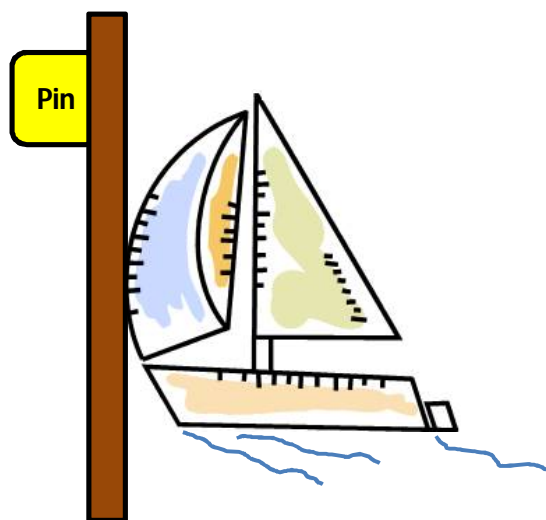


Calling the Line

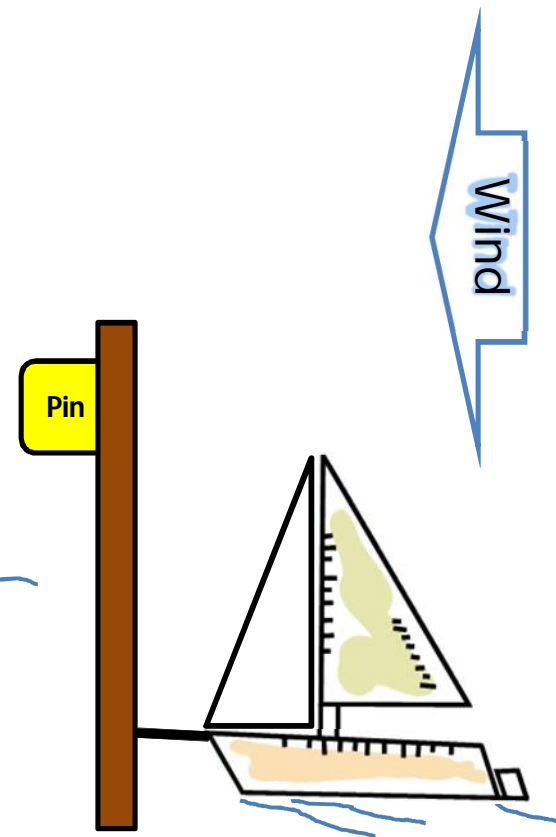
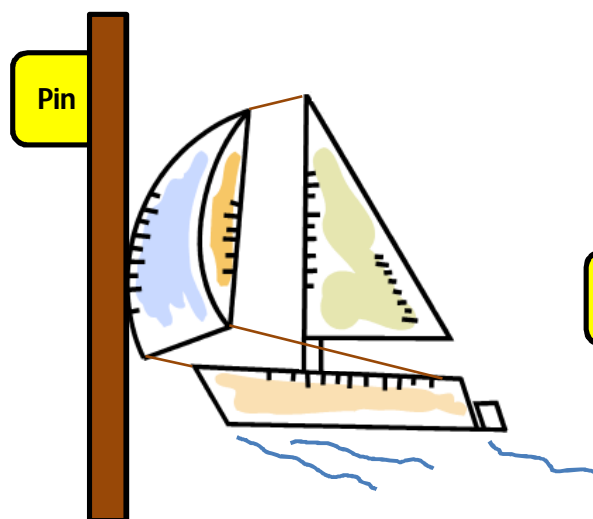
- At the FINISH
 - The “finish line” is the plane that extends from the course-side edges of the two items marking the ends of the starting line
 - “Items” = Halyard, Pole, Inflatable Mark, Buoy, etc.
 - A boat is considered “Finished” when “any part of her hull, or crew or equipment in normal position, crosses the finishing line in the direction of the course from the last *mark*”
 - The entire boat is not required to pass through the line
 - The boat must stay clear of the RC boat, mark, & other competitors who are still racing
 - If a “finished” boat commits a foul, they are required to exonerate themselves, then refinish



Calling the Line



“Finish” is recorded as soon as the belly of the spinnaker touches the forward edge of the plane of the line

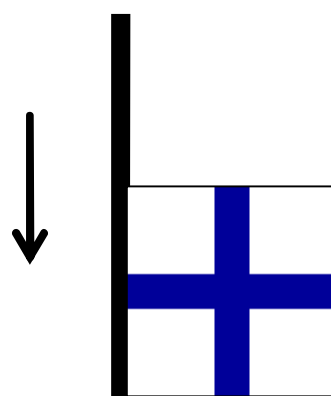
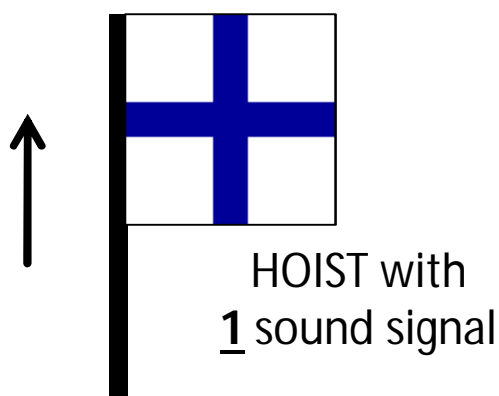


These are NOT legitimate finishes since gear is not in its “normal position”



Individual Recall

- RRS 29.1
 - “When at a boat’s starting signal any part of her hull, crew or equipment is on the course side of the starting line or she must comply with rule 30.1, the race committee shall promptly display flag X with one sound.”



STRIKE with
no sound signal –
after the last boat has
cleared or after 4 minutes,
whichever occurs first

“Individual Recall.”



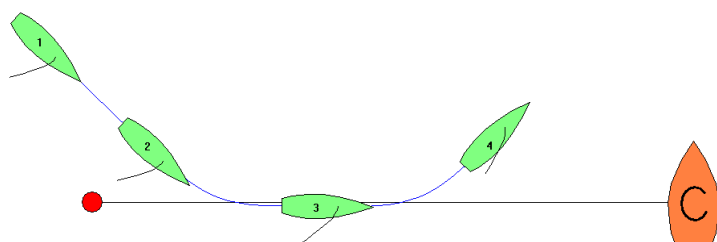
Individual Recall

- The key requirement is for RC to “promptly” signal Individual Recall
 - “Promptly” has been left vague & undefined
 - However, you should be able to complete the signal within a few seconds
 - You do not have time to find the flag, attach it to a halyard, then hoist it
- The flag is flown until either all boats clear themselves, or 4 minutes have elapsed – whichever occurs first

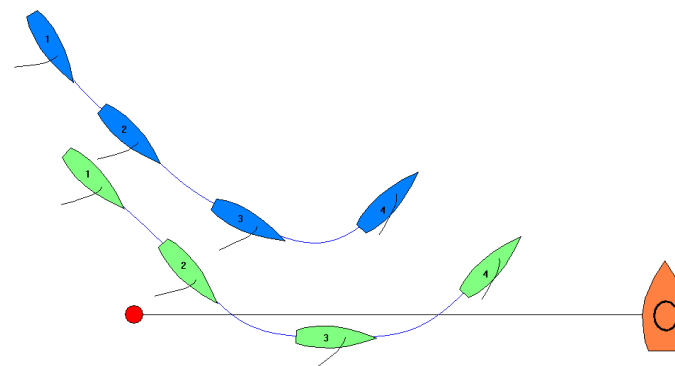


Individual Recall

- The entirety of the boat, crew, & equipment must all be on the pre-start side of the line in order to clear the OCS
- **Never** dip the flag to acknowledge that an individual boat has cleared herself



Has this boat cleared herself?

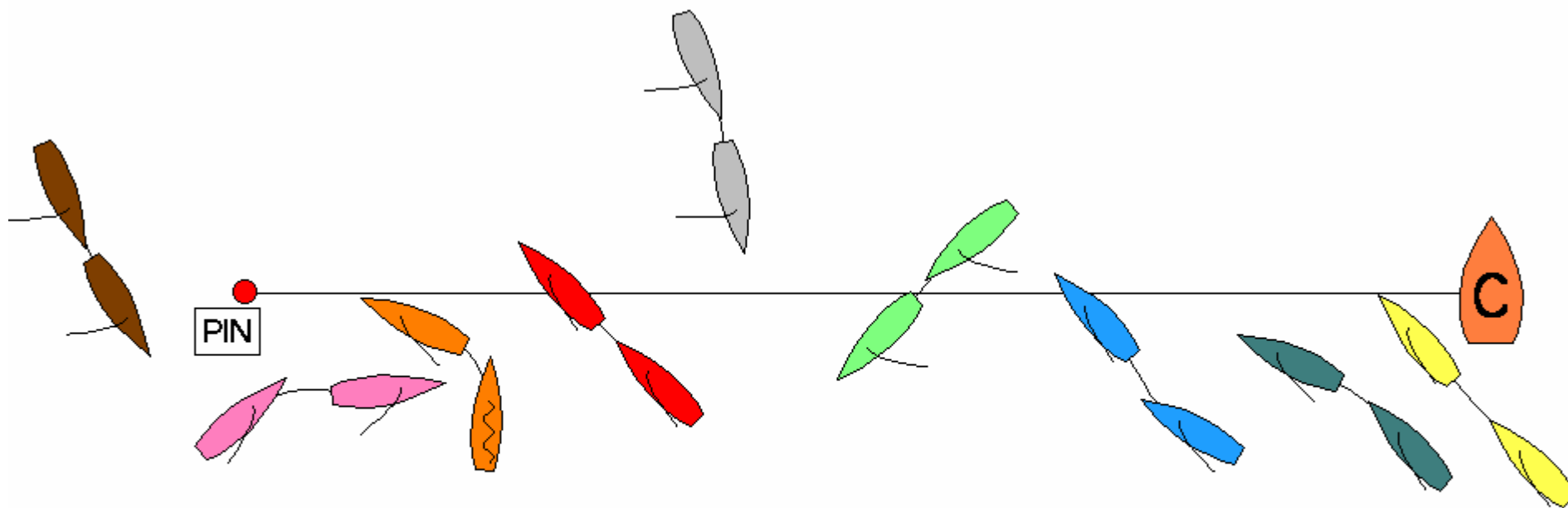


Suppose that crew on Blue saw the X flag "dip" for Green while at position 3.



Individual Recall

- Can you manage an Individual Recall from this scenario?





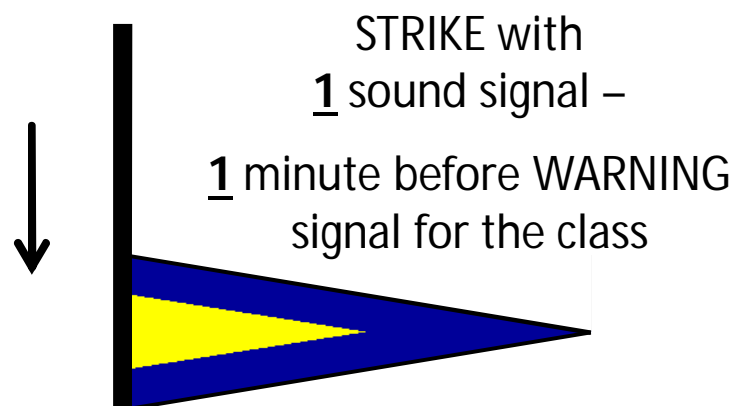
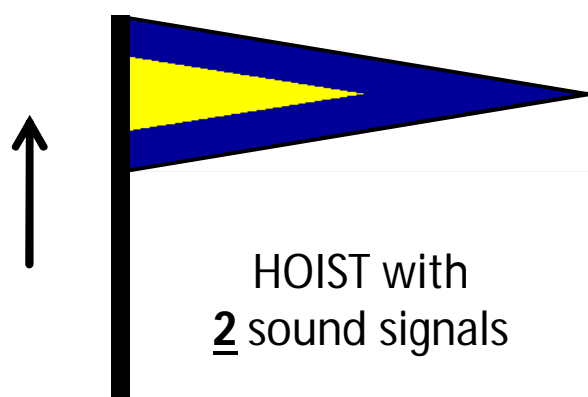
Individual Recall

- Keep an eye on all OCS boats – you must still clear them when they come back
- Keep track of how long the Individual Recall flag has been flown
 - It must be removed at T+4 minutes if all boats do not come back to clear themselves



General Recall

- RRS 29.2
 - “When at the starting signal the race committee is unable to identify boats that are on course side of the starting line or to which RRS 30 applies, or there has been an error in the starting procedure, the race committee may signal a general recall.”



“General Recall. The warning signal will be made 1 minute after removal.”



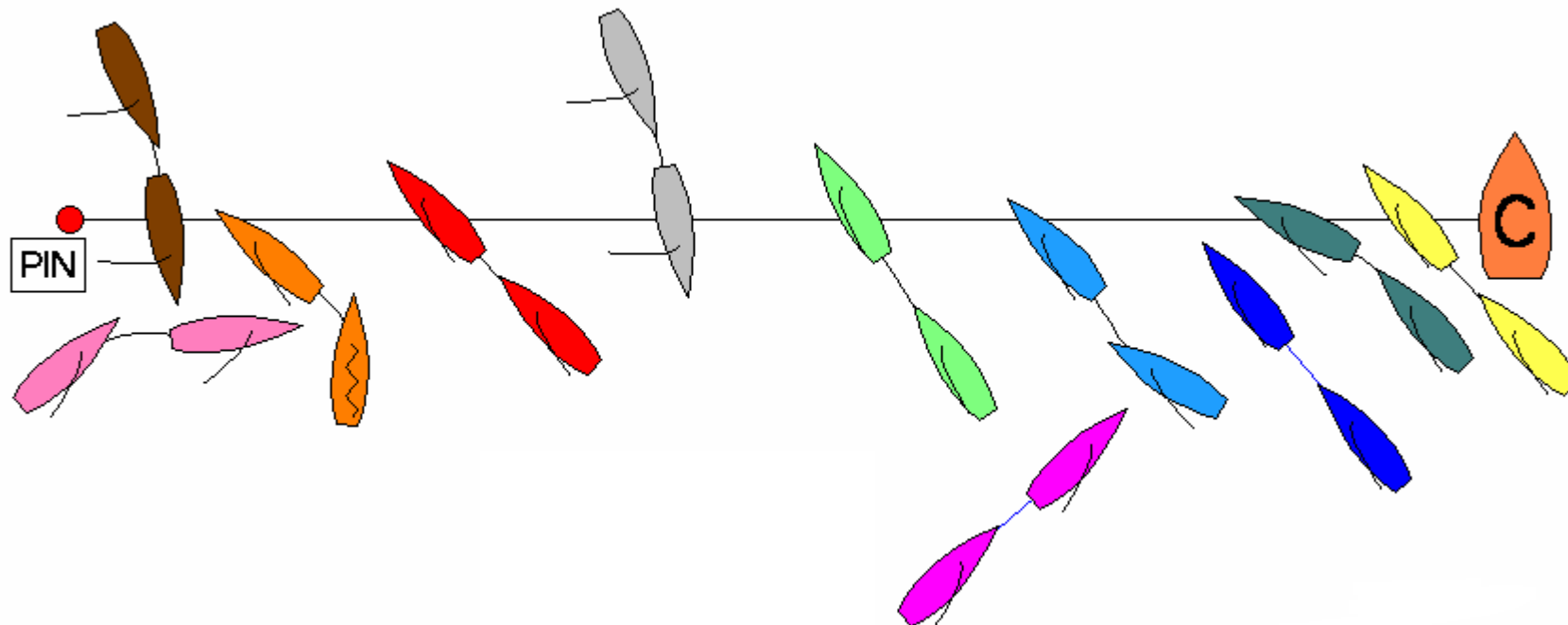
General Recall

- There may be an “unfairness” associated with a General Recall – regardless of which decision you make
 - A General Recall is not fair to the boats that started fairly
 - If you can identify every OCS boat, signal Individual Recall
 - However, an Individual Recall is unfair if OCS boats are not identified
- The PRO must weigh the disadvantages of either decision
 - Stipulates that the recalled class will be the next one to go back into the start sequence
 - Some SIs have been modified direct that the recalled class goes to the end of the remaining classes to be started



General Recall

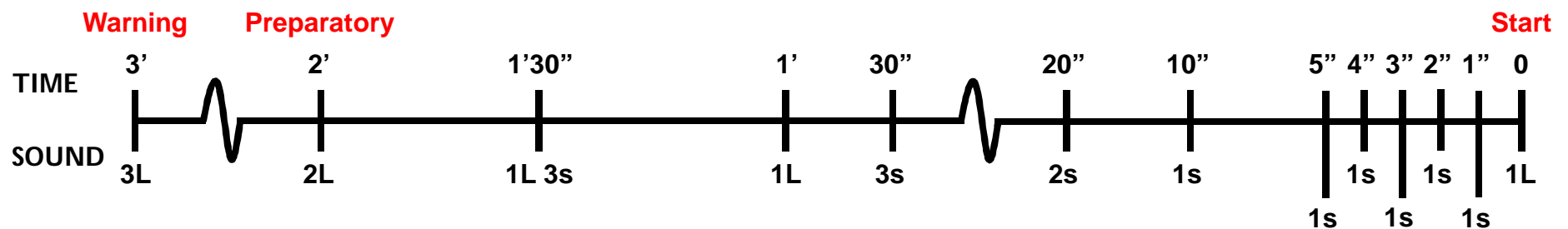
- What does a General Recall look like?





Appendix S

- Sound-Signal Starting System
 - Used by our Small Boat Program for Thursday night racing
 - The course & postponement signals may be made orally
 - The Individual Recall flag does not have to be displayed to indicate OCS
 - An oral hail of sail numbers or some other distinguishing features is all that is required
 - Audible signals govern over visual signals
 - 3-minute start sequence





How to Record Finishes

- When possible, employ multiple recorders
 - Most smartphones have a voice recorder app
- Stay calm when things get congested
 - Record sail #, boat name, or any distinguishing feature
 - Use a recorder's shorthand to minimize how much information must be written
- Use the same watch to call finish times as was used for the start countdown
- What else?
 - Is a protest flag flying from the backstay?
 - Does the number of finishers match the number of starters?
- Double-check everything & have the recorders cross-check their sheets



How to Record Finishes

- Recorder's Shorthand

Clear, easy-to-read lettering

Don't use colons, leave a space

93084	19 57 04
39519	58 10
87012	59 23
14	20 00 44
93266	51
43162	55
73304	01 17

Don't rewrite the "hour" if it doesn't change

Don't rewrite the "minute" if it doesn't change



Determining Course Length

- For Wednesday night racing, course length will be automatically calculated in the scoring spreadsheet
 - This is possible since we utilize a fixed starting location
- Weekend racing provides some options
 - Setting the start/finish line off an existing SMSA mark allows you to utilize a scoring spreadsheet to calculate the course length
 - Setting the start/finish line away from an existing mark will require a GPS to determine your anchor point
 - You must calculate the distance from the start line to the first mark & the distance from the last mark to the finish line
 - Do not attempt this type of course configuration if you are not familiar or comfortable with use of a GPS
- For small boat racing, distance is irrelevant since it is time-on-time handicapping or one-design racing



Big Boat Scoring

- Racing is based on the Performance Handicap Racing Fleet (PHRF) Time-On-Distance handicap system
- Utilizes an Excel spreadsheet developed by Joy Dorethy
 - Be sure to download the latest version the night before/day of your race committee assignment
- Required data
 - Cumulative point-to-point distance of each leg
 - Sail number
 - Start time
 - Finish time



Scoring the Races



Big Boat Scoring

Frostbite Results - 06 Apr 08 - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Acrobat

Clipboard Font Alignment Number Styles Cells Editing

A20

Instructions:

ONLY Enter DATA In The SHADED Areas!!!! Create a Separate File for Each Race.

1) Select File - Save As, and Save with the "File name" as "RaceNameRace#", eg "FrostBiteRace1".

2) Enter the **Committee Boat Name** and the **Race Date**.

3) Enter the **Course** (*DO enter the mark being used for "X", such as "Y"*). Use the Pulldown List. The Course Length is automatically calculated.

4) Enter each **Yacht Name**. Use the pulldown list. The Sail Number and PHRF Rating is automatically completed.

5) Enter the Start Time in **24-hour military format**: (hr) (min) (sec).

6) **Save the File**.

7) Enter the **Finish Time** for each boat in **24-hour military format**: (hr) (min) (sec).

8) If a boat is **DNS** or **DNF**, leave the **Finish Time** as 23:00:00. Enter the **DNS** or **DNF** in the **Remarks** column to the right of **Corrected Time**.

9) **Save the File**.

10) Select the Gray **Sort Fleet** Button, located to the right of the **Remarks** column.

11) **Save the File**.

12) **Email the File to the Scorer at score@smsa.com**

Frostbite Race

Course: Committee Boat Name ==> American Flyer

Y K A B Y Race Date==> 06-Apr-08

Course Length==> 6.20

NonSpinnaker Fleet

Sail Number	Yacht Name	PHRF Rating	Finish Time (hr) (min) (sec)	Uncorrected Elapsed Time (hr) (min) (sec)	PHRF Allowance (Sec)	Corrected Time (Total Sec)	Corrected Time (hr) (min) (sec)	Remarks (DNS/DNF)	Sort Fleet
USA173	Splash	111	14 06 41	1 01 41	888.2	3012.8	0 50 13		
93266	Foxtrot Corpen	78	14 03 27	0 58 27	483.6	3023.4	0 50 23		
USA41	Rhumb Punch	51	14 00 49	0 55 49	316.2	3032.8	0 50 33		
23798	Pursuit	48	14 00 42	0 55 42	297.6	3044.4	0 50 44		
262	Seoucia	126	14 11 25	1 06 25	781.2	3203.8	0 53 24		
87012	Rock Lobster	111	14 10 13	1 05 13	888.2	3224.8	0 53 45		
2276	Shermax	177	14 17 27	1 12 27	1097.4	3249.6	0 54 10		
63076	Status Quo	108	14 17 05	1 12 05	669.6	3655.4	1 00 55		
#N/A	#N/A	#N/A	23 00 00	9 55 00	#N/A	#N/A	#N/A	#N/A	



Small Boat Scoring

- Racing is based on the Portsmouth time-on-time handicap system
 - Each boat's handicap is adjusted for the measured wind strength in a given race
- Utilizes the Sailwave scoring program
- Required data
 - Average wind speed
 - Start time
 - Sail number
 - Finish time



Scoring the Races



Small Boat Scoring

Sailwave version 1.95 Build 6 - [C:\Users\Keith\Documents\Small Boat Program\Scoring\2008 SBP Results\2008 SBP Race Results - 080828.blw]

File View Edit Publish Setup Tools Plugins Window Help

User interface Series properties Scoring system Prizes

Viewing Scored points Columns

New New Like Delete New Sail num wizard Score series Rescore

2008 SMSA Thursday Night Racing :: SMSA Small Boat Program Scoring system applied :: Portsmouth :: scored by Fleet

Statistics
Entries 37
Included 14
Excluded 23
Races 2
Prizes 0
Code formats 0
Series proper
Event 2008 SMSA Thur
Venue SMSA Small Boat
Date format d-m-y
Scoring system Portsmouth
Scored by Fleet
Points system Low point
Codes 14
Tied races Averaged
Points round 1
8.1 tie breaker Yes
8.2 tie breaker Yes
Discard profile 0,0,0,1
Wind indexing Yes
Rating system USPN
+ When Fleet = Laser
Rating system None
+ When Fleet = Multihull
+ When Fleet = Portsmouth
About
Series version 1.95 Build 6
Program versio 1.95 Build 6
Locale entries 0
Rating values 0

Series summary

*Rank	*Fleet	Boat	Class	Sail #	Helm	Crew	USPN	Race #1	Race #2	Pts
1st	Laser	White Lightning	Laser (Intl)	86153	Stanley, Shawn		91.1	1.0	1.0	2.0
2nd	Laser		Laser (Intl)	147510	Moore, Jeff		91.1	3.0	2.0	5.0
3rd	Laser		Laser (Intl)	94817	Richards, Trevor		91.1	2.0	3.0	5.0
4th	Laser	Disco Watermelons	Laser (Intl)	189791	Kubinec, Joe		91.1	4.0	4.0	8.0
5th	Laser		Laser (Intl)	51104	Moulds, Tom		91.1	5.0	5.0	10.0
6th	Laser		Laser (Intl)	17	Patterson, Scott		91.1	6.0	6.0	12.0
1st	Portsmouth	Key Lime	Albacore	6642	Szymanski, Joe	Leitner, Sandy	90.3	1.0	1.0	2.0
2nd	Portsmouth	No Problems	Buccaneer	5210	Luckritz, Bob	Pettit, Tony	86.9	2.0	2.0	4.0
3rd	Portsmouth	Dodgem!!	Buccaneer	5226	Yurko, Jimmy	Yurko, Kristy	86.9	4.0	3.0	7.0
4th	Portsmouth		Buccaneer	2332	O'Hara, Brian	Quinn, Peter	86.9	3.0	4.0	7.0
5th	Portsmouth	Spider Monkey	JY15	503	McDougall, Don	McDougall, Jean	91.9	5.0	5.0	10.0
6th	Portsmouth		Buccaneer	5102	Gyorgy, Mark	Homsher, Jolie	86.9	7.0	6.0	13.0
7th	Portsmouth		Flying Scot	5736	Kramer, Ken	Edgington, Brian	89.6	6.0	7.0	13.0
8th	Portsmouth		Taipan 4.9 Uni S	274	Ragen, Patrick		65.2	8.0	8.0	16.0

15 February, 2009 1:21:30 P



Scenarios

- As the Line Spotter, you see the shoe of 1 crewmember OCS at the starting signal.
 - What does the RRS say?
 - What do you do?
- At 30 seconds from the start of the 1st class on a Wednesday night, the wind drops from 8 knots to 2 knots.
 - What does the RRS say?
 - What do you do?
- A single OCS boat is signaled properly. As the boat is coming back, the “X” flag falls to the deck.
 - What does the RRS say?
 - What do you do?