

Outline



Before Leaving the Dock

On Station

- Checking in, wind readings
- Setting the course and starting line
- Course Designations

The Start

- Starting procedures Rule 26 and Appendix U
- Flags and signals
- Standard and penalty starts
- Recording OCS, start time, number of boats

Outline con't



During the Race

- Course change
- Shorten/Abandon

The Finish

Recording

Back at the Dock

- Scoring
- Protests

SSA Signal Boats



Home of the PRO/DRO



Favored End

Edgar D Parker 23



Duties and Responsibilities



- Set up race course, run races
- Communication with competitors
 - Competitor's meeting
 - Race Committee notice board by snack bar
 - Flags, VHF (if permitted by SIs)
- Scoring, handling submitted protests
- SAFETY

The RC is best when it is 'invisible' and does not impact the outcome of the competition

Your Personal Gear

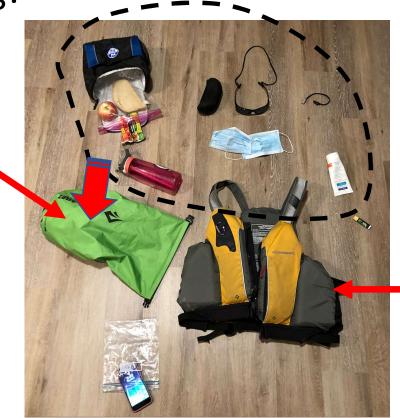


Storage space is very limited on the RC boats.

Take only what you will need and in a small

waterproof bag!

All your gear should fit into a small waterproof bag!





Bring your own Life jacket.

If you do not and the situation requires that you wear one, you will be given a standard Type I PFD

COVID-19 Precautions





Masks

No Covid restrictions at this time. If you are immune challenged, you can sign up for a smaller RC, bring your own personal protective gear. We have cleaning solutions and wash stations operating



Clean the Boat



Wash hands



Smaller RC



Serve in pods of people you trust

Before Leaving Dock



- FIRST Make sure signal boat starts and has fuel
 - QR Codes have detailed info about each boat
 - Battery switch for FE under engine cover
- RC Briefing by PRO, DRO and Dock Hands
 - Level of information from mark boats
 - Radio channel(s)
- Get required equipment from office
- Radio check
- Conduct Competitor's Meeting
 - Location of RC member receiving protest forms
 - Post any changes/information on Notice Board
- · One sound in harbor 1 hour before warning signal
- Exchange cell phone numbers

Gear for Signal Boat



Stuff from the RC Office

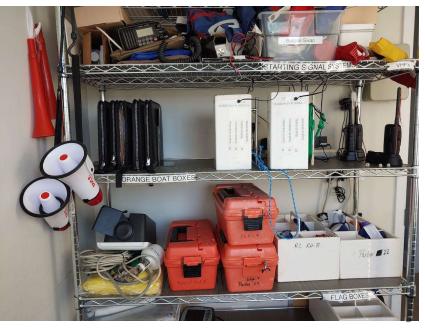
- Orange Boat Box
- RC Folder with forms etc.
- Laptop for scoring



Use ship's radio as primary.

PLEASE bring your own radio as secondary. Use club's handheld radios only if you do not have one.





AED



Automated External Defibrillator

- Do not have to be CPR certified; device will provide detailed instructions
- YouTube video

https://youtu.be/BAWGjNAj_vA



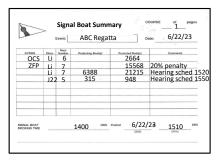
Make sure AED is on one of the non-anchored mark boats, either Edgar D or Hugh E. Never on a RHIB or anchored mark boat!

Commonly Used Forms and Documents





Finish Sheets - Include all observations about the race finish at the bottom and margins of this form: Boats scored OCS, DNS, DNF, etc. hails and red flags of intent to protest, RET, changes to finish order. You can use finish sheet or entry scratch sheet as a check in form.



Signal Boat Summary – The *official and posted* record of actions by the RC: Boats scored OCS, DNS, DNF, Starting penalties applied, Request for hearing or Redress, RC protest of boats. Post on Notice Board **ASAP after docking.** Update as Request for Hearing forms are received ASAP after logging them in.

SSA Race Committee Dock time Date Time **End of Protest Time** Date Time

Race Committee Dock Time / End of Protest time, typically 60 min after dock time, SSA NOR/SI 18.1, RRS 61.3 or other SI. Post on Notice Board as soon as you are docked!

Before The Start – On Station

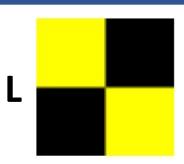


- Select starting area
 - Sufficient length for weather leg
 - Ability to change course direction for wind shifts
- Anchor
 - Use plenty of rode (at least 6 times depth)
 - Chain for increased bite
 - Heavy anchor for windy conditions if needed

On Station - Check-In



Hoist code flag L with one sound



- Record check-ins
 - Boats required by SIs (SSA SI 12.1) to sail by Signal Boat and hail their sail/hull number
 - Loudly acknowledge each boat
- Do not check in any boat unless they satisfy SSA SI
 11.1 or equivalent if using special SIs
 - 20% Scoring penalty per SI 12.2

Starting Area and Course Considerations



- Avoid crab pot fields in the starting area
- Avoid shallow water in starting area and at marks
- Avoid high traffic areas for starting area and course

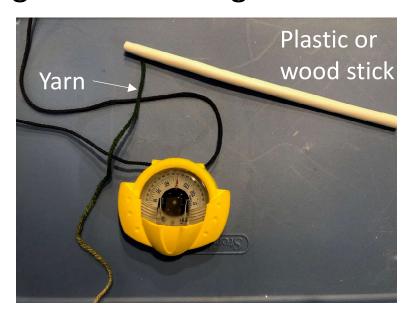




Taking Wind Readings

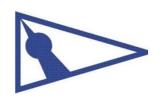


- Hold wind stick with yarn at arm's length
- How to use the "Hockey Puck" compass: <u>https://www.youtube.com/watch?v=JyT4vhiRMs8</u>
- Move your arm and the compass together until the yarn streams directly back towards the compass; read the bearing
- Don't hold a radio or any metal object near the compass—you'll get false readings





Taking Wind Readings



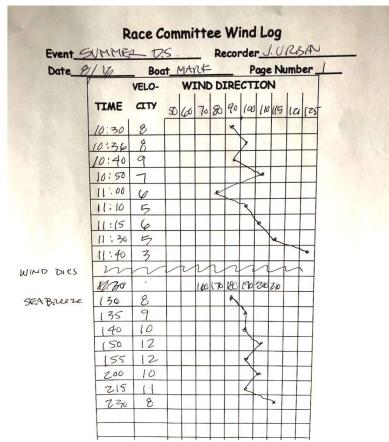
 Record wind direction and time on Wind Log prior to start or when requested by PRO or DRO

 Course to weather mark should be average of oscillating readings. Can be biased towards one direction for anticipated

persistent shift



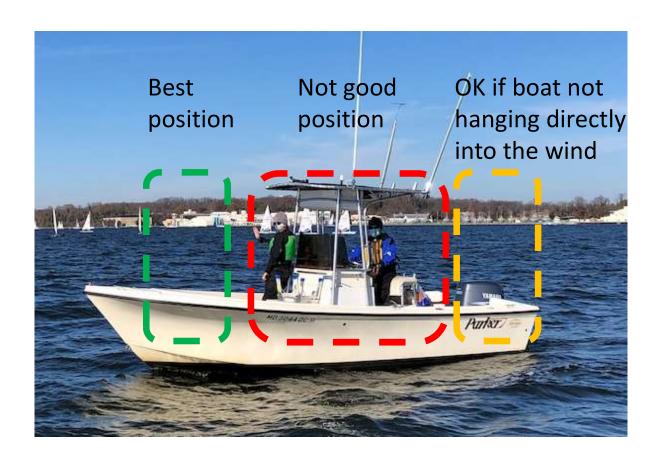
Correct technique for taking wind readings

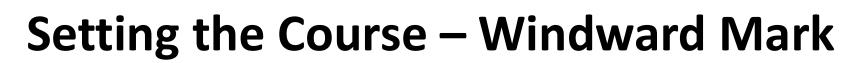


Wind Direction and Velocity Readings



- Be aware of obstructions affects wind direction
 - Boat canopy, cabin, etc.
- Wear PFD on front deck of Favored End in bad weather





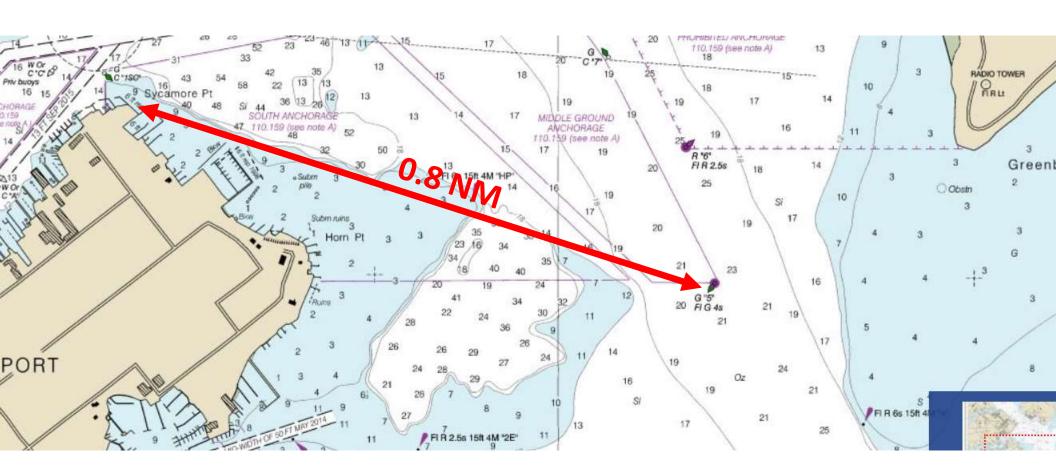


- Windward mark boat proceeds upwind to position specified by PRO
 - Direction generally average of wind readings
 - Distance From GPS, apparent size of weather mark boat, time for first leg of first race
- PRO uses radio to adjust position of windward mark boat to weather of leeward mark/center of gate (not RC signal boat)*
 - In shifty winds, take an average and go with it

^{*}Don't let perfect get in the way of good!!!

Judging Length of Windward Leg



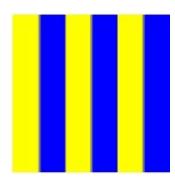


- Send weather mark boat to green can #5 off Greenbury Point and Back Creek
- Apparent size at 0.8 NM

Setting the Leeward Mark/Gate



- Leeward mark boat takes mark ~75 150' above starting line, checks with PRO re. position
 - Single leeward mark centered on starting line
 - Gate center gate on starting line
- Gate
 - Perpendicular to the wind Use compass
 - Signal boat flies code flag G for gate
 - Minimum 7-10 boat length distance between marks
 - New technique on next slides



G

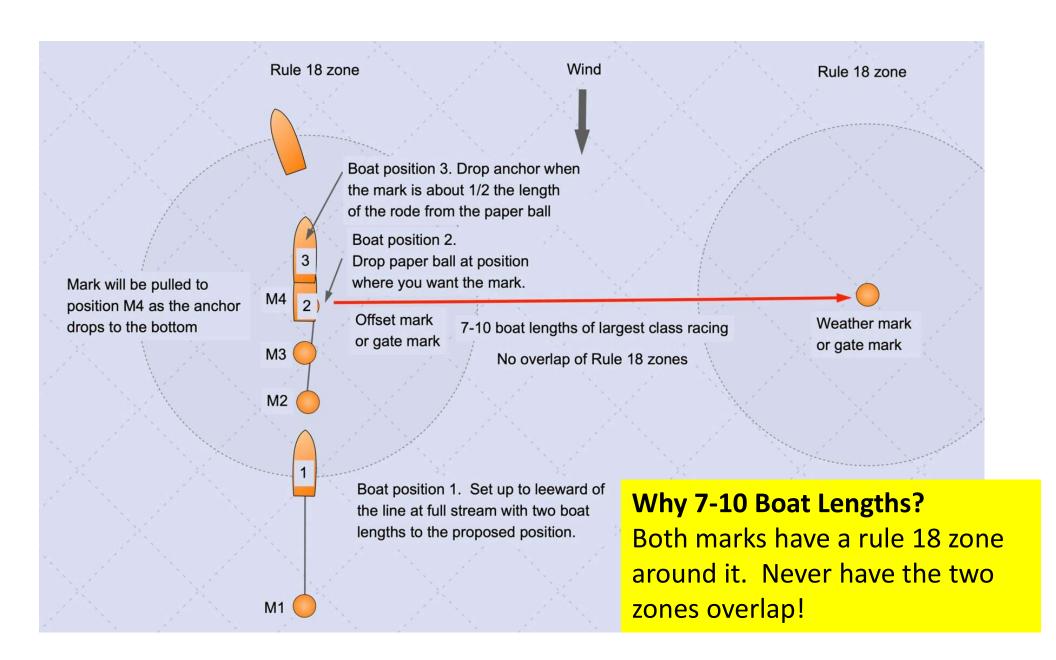
A Cool Gate Setting Technique



- First mark in the water
- Circle back 7-10 boat lengths from first mark
- Proceed slowly upwind while streaming second mark
- Using compass, sight bearing to first mark = wind direction + 90°(if setting port gate mark) or WD - 90° (if setting starboard mark)
- When boat is at correct bearing, drop a small floatable object (balled up paper, ball, PFD) into the water
- Continue upwind; when mark is about ½ the length of the rode from the object, drop anchor
- Retrieve object

Setting the Gate







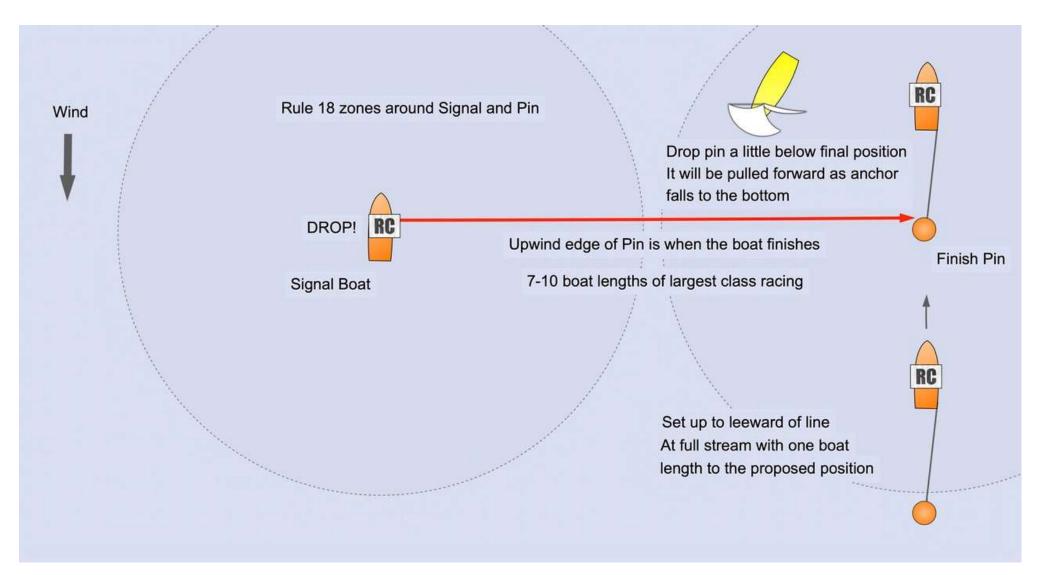


Split start/downwind finish ("F" course)

- Mark to starboard of RC signal boat
 - Minimum 7-10 boat lengths
 - Mark boat streams mark; PRO sights bearing perpendicular to the wind with compass
- Keep short enough to be able to read sail numbers of boats at the far end







The Starting Line



- Between course side of pole with orange flag on signal boat and course side of starting pin (typically yellow mark) or orange flag on pin boat (RHIB)
- Line length = # boats X length of competing boats



Setting the Starting Line

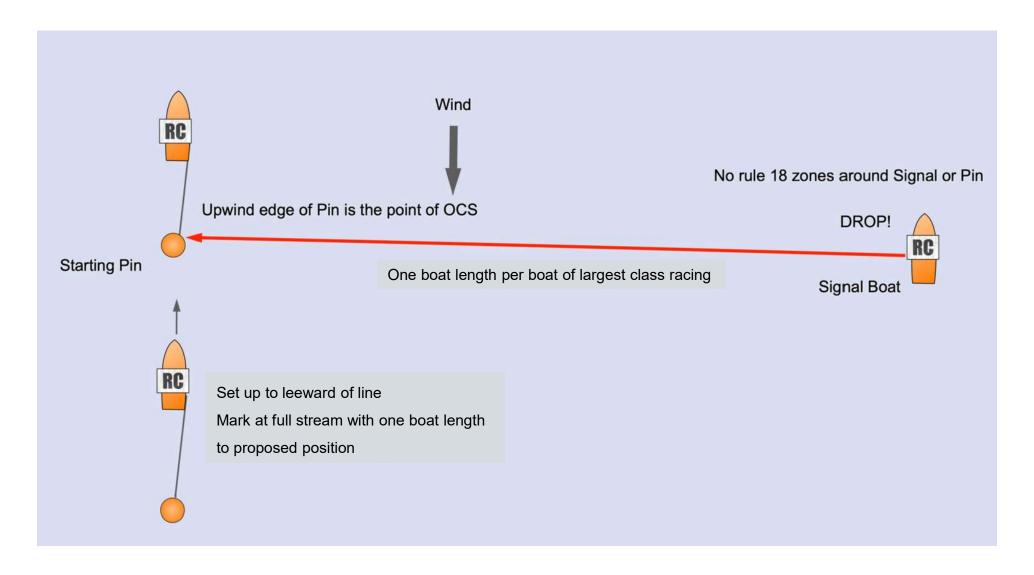


- PRO, DRO or RC member communicates with mark boat via VHF
 - Directs boat to correct length
 - Sights desired bearing with compass
 - In shifty winds, take an average and go with it
- Mark boat streams starting mark from below line and heads to weather
- Gives warning as boat crosses bearing; commands "Drop" when mark is at bearing





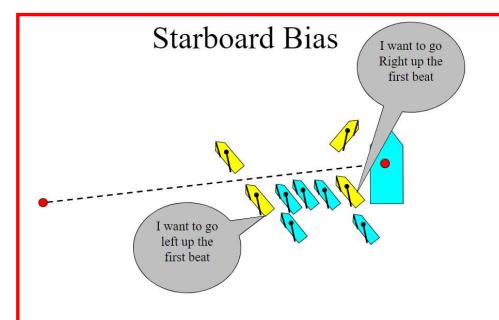




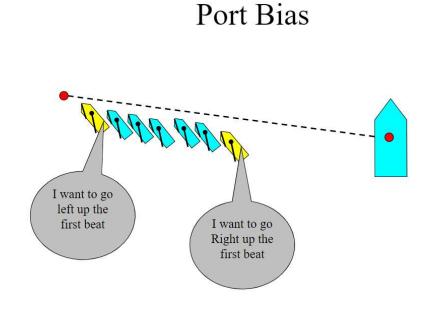
The Starting Line



- Start line bearing = wind direction 90°
 - Need accurate wind readings
 - Try to avoid significant bias



- Boats congregate at signal boat
- One OCS boat can block view of starting line



- Boats congregate at pin
- May not be able to cross line on starboard
- Difficult to see numbers from signal boat

Starting Line Problems



- One end favored more than 5 10°
 - Boats bunched up
 - General recall likely
- Too short
 - Several rows of boats distributed along whole line
 - General recall possible
- Strong current flowing to windward
 - Boats swept over line
 - General recall likely

Starting Line Problems



- Solutions
 - Postponement prior to starting signal; straighten/lengthen the line
 - If General Recall, straighten/lengthen the line before restarting sequence
 - Penalty starts I, U, Z, Black Flag
- Black Flag or Z starts
 - Have AP ready; if General Recall likely, postponement just before starting signal is preferable
 - Penalty does not carry over
 - Split-second decision
- Sailors would prefer to wait a few minutes to have a fair start with a good line

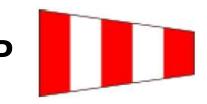
Before The Preparatory Signal



- 1. Post compass bearing to weather mark
- Post course on course board
- 3. Load class board with class placards in order of start
- 4. Hoist orange flag for boat end of starting line
- 5. Lower L (no sound) after all boats have checked in or one minute prior to the warning signal

Postpone if necessary

- Hoist AP with two sounds



Look UP!!! Check all flags, class placards, course board and compass board



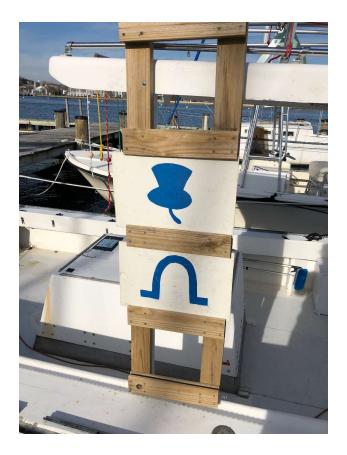


Race Committee Documentation Form		
Date		76
Class		76
Race No.		- 19
8		10
Course	Time Posted	- 9
Compass Bearing	Time Posted	- 3
Distance		
		- 0
Preparatory Signal		- 19
Time of Start		
OCS Boats		
<u> </u>		
N.		
OCS Boats Cleared		
		- 1
N		- 1
Number of Starters		- 1
First Boat Time At Mark		16
		79
2		- 10
1 2 3 4 5		19
4		79
5		79
		16
		16
First Boat Time of Finish		16
Last Boat Time of Finish		10
Number of Finishers		10
Time Limit		
		100
Withdrawals		79
Protests		- 10
8		
		- 1
Remarks		
		_0
<u> </u>		-

Compass Board and Class Boards





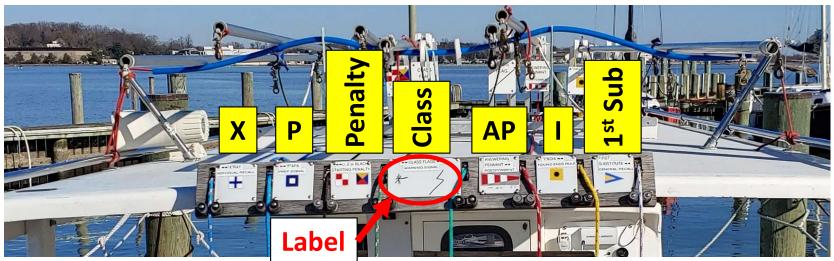


Be sure to check the Compass and Course Board twice (2 different people) to avoid inversions, i.e.,

Rig Starting Flags on Poles



- Class Flags located in white box on Favored End
 - Rig on hoist poles on top of FE; label with china marker
 - If more than 2 classes, rig flags to halyards on mast in stern
- Starting Signal Flags on door and spare flags in boxes in FE cabin
- Rig on hoist poles on top of FE per labels



SSA Courses – See Sailing Instructions



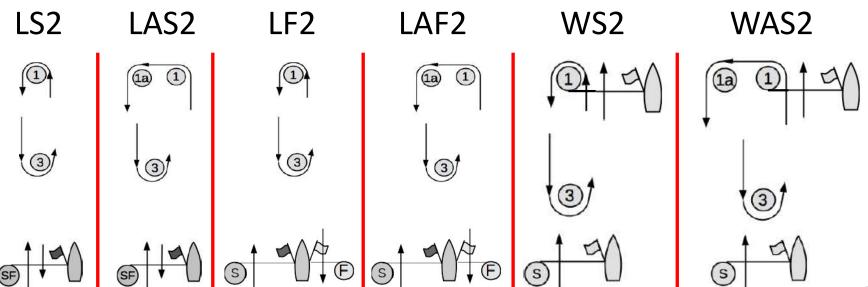
- First letter(s):
 - Windward finish
 - Leeward finish
 - TW triangle course, windward finish
 - TL triangle course, leeward finish
- Next letter: A offset mark, [none] no offset
- Next letter Type of finish. For Leeward finish:
 - [none] through starting line
 - <u>S</u> between leeward mark and committee boat
 - <u>F</u> through finish line
 - R reaching

SSA Courses - con't



- Next letter con't. For Windward finish:
 - [none] between finishing mark and committee boat
 - <u>S</u> between windward mark and committee boat
- Numeral number of windward legs

Examples (only 1 lap shown for clarity):



Communication

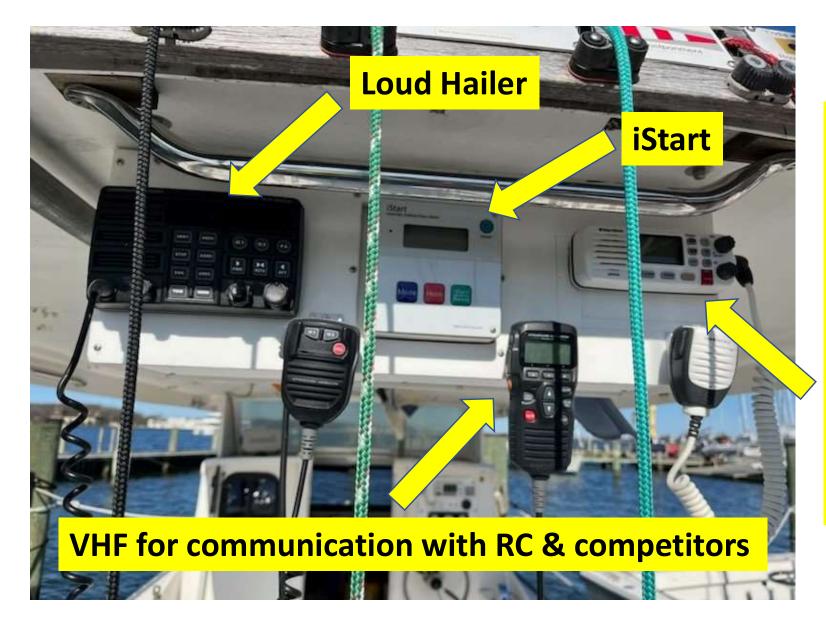


- Use ship's radios instead of handheld longer range
 - Handheld for setting marks
 - Face wind and hold handheld with back of radio towards wind to avoid wind noise across microphone
- Favored End and Edgar D have 2 ship's radios
 - If possible, one radio should monitor Channel 16
- Channel 65A for RC work; may use other channel (e.g., 69) for communication with competitors (Note: 68 is water taxi channel; never use it!)
- Cell phone communications that you don't want competitors to hear

VHF (Channel 16 for safety)

Console





Set iStart Mode



- TESOD, Frostbite
 - Mode 22 2 minute sequence, automatic 15 sec alert/attention*
- Weekend Appendix U, Thursday Night Sailing
 - Mode 30 3 minute sequence, w/o attention
 - Mode 32/34 3 minute sequence, 15/60 sec attention
- Weekend Rule 26
 - Mode 50 5 minute sequence, w/o attention
 - Mode 52 5 minute sequence, 60 sec attention

*Five short sounds

iStart Automatic Sailboat Race Starter



 Full table on back of iStart or back of box for station-mounted units

 Repeatedly push Mode button to cycle through Modes | MODE | TIME | STYLE | TYPE | ALERT | MODE | TIME | STYLE | TYPE | ALERT | MODE | TIME | TYPE | ALERT | All | TYPE | ALERT | TYPE | TYP

Change Modes

Manual Horn

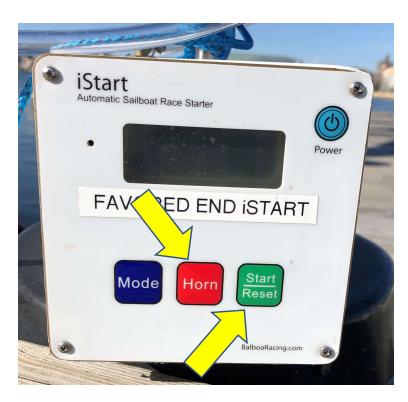
Start Sequence

BalboaRacing.com

Starting Sequence – Rule 26



- Check to make sure all signal flags are down except orange flag and AP (if used).
- 60 sec before warning signal Alert
 - Four or more rapid horn sounds for attention (manual or iStart) *OR*
 - One sound (manual), lower AP
 - Prepare to hoist class flag
- Warning signal
 - 5 min before the start
 - Start iStart if not already started
 - Hoist class flag



Starting – Rule 26 (Visual and Sound)

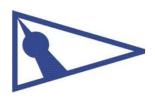


- Weekend, major regattas
- Flags hoisted and lowered by RC
- Sound signals typically by iStart Modes 50 or 52

Minutes before starting signal	Visual signal	Sound signal	Means
5	Class flag	One	Warning signal
4	P or penalty flag	One	Preparatory signal
1	Prep flag down	One	One minute
0	Class flag down	One	Start

^{*}For multiple classes, *no rolling starts*; wait for starting class to clear the starting area and sail upwind to allow for clear air for next class





- Sound signals typically by iStart
 - Modes 30 or 34 TESOD, weekend regattas
 - Mode 32 Thursday nights

Signal	Sound	Time before start	
Attention	Series of short blasts	Before the warning	
Warning	3 long	3 minutes	
Preparatory	2 long	2 minutes	
	1 long, 3 short	1 minute, 30 seconds	
	1 long	1 minute	
	3 short	30 seconds	
	2 short	20 seconds	
	1 short	10 seconds	
	5 short, 1 second apart	5 – 4 – 3 – 2 – 1 seconds	
Start	1 long	0	

Manual Alert Signal



 Series of short sounds (4 or more because 1, 2, or 3 sounds have specific meanings)

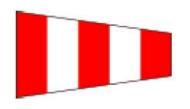
Suggested alert timing:

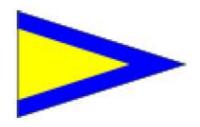
- TESOD and TNR 15 sec before warning signal
 - Many short, fast paced races
 - Boats stay near starting races
- Weekend, invitational, championship 60 sec before warning
 - Boats have travelled to event
 - DNS ruins a weekend! Be kind to the competitors
 - Boats may have sailed away from starting area due to breakdown, waiting for other boats or classes to finish, lunch, etc.
 - If there is a General Recall, the First Substitute is lowered with 1 sound 60 sec before warning signal

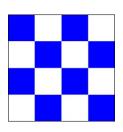
iStart Modes with Automatic Attentions



Don't use after Postponement, General Recall or Abandonment







- Warning signal made 1 min after removal of AP, First Substitute or N
- One sound manual
- Cannot use iStart modes with automatic alert/attention
 - Change Mode $52 \rightarrow 50$
 - Change Modes $32/34 \rightarrow 30$

• RRS 29.2

Starting Flags



Preparatory Signals – one sound		Other Starting Flags		
	P – Preparatory signal			X – Individual Recall – one sound
	I – Rule 30.1 (Round the ends)			First Substitute – General Recall – two sounds
	Z – Rule 30.2 (20% penalty)	No	ote: Penalty flag	gs I, Z, U or Black
	U – Rule 30.3 (DSQ for that race)	Fla	Flag act as preparatory signal and replace P	
	Black flag – Rule 30.4 (DSQ for that and subsequent races)			46

On Course Side (OCS) / Penalty Starts

Standard Start

 OCS determined by any part of hull on course side of starting line (not crew or equipment – per RRS 2021-2024)

Penalty Starts

- Penalty period begins one minute before start
- Code flag I penalty start (Rule 30.1) OCS determined from starting line and extensions!!!
- Code flags Z, U and Black Flag OCS determined from triangle formed by ends of the starting line and weather mark

The Start



- One or more people sighting line between course side of pole with orange flag on signal boat and course side of pin/orange flag on pin boat
- Both voice and written recording

Maintain dialog of boats nearing line, potential OCS,

etc.



On Course Side



- Get OCS numbers from pin end boat and record
 - Anchored before warning signal
- Few OCS Individual recall via code flag X with 1 sound; hail numbers; record boats that exonerate themselves
 - Display X until all OCS boats clear or 4 min after starting signal



- Numerous OCS General recall via First Substitute; 2 sounds
 - No time limit to start after general recall



- Can straighten starting line, move weather mark, etc.
- Lowered with one sound exactly one minute before warning signal for restart

The Start



- If All Clear, record number of boats and time of start
- Time of start is very important since there are time limits on both the first leg and whole race
- SSA SI 13.4: 10 min window for late arrivals, then DNS



During The Race

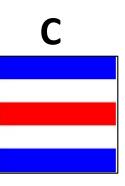


- Windward mark boat
 - Reports time of first boat rounding
 - Counts and reports number of boats rounding compare with number starting
- Monitor wind shifts
 - Course change if wind shift is significant (>10° and not oscillating back) or velocity changes
- Shorten course or abandon
 - Foul weather; insufficient wind (time limit); safety and fairness of race
- Direct mark boats to render assistance to boats in distress if requested

Course Change



- Judgement call Unfair course
 - Significant wind shift or poor initial layout
 - o "One" tack weather leg or "one" gybe leeward leg
 - Significant change in velocity
- New mark is tetrahedron
 - Changing windward mark ideally need new offset if "A" course
 - Changing leeward gate need new gate if possible
 - Subsequent change mark is original cylinder
- C flag start windward mark is tetrahedron SSA SIs 10.3
 - Display before preparatory signal



Course Change



Signal change at prior mark

- C flag, Series of sounds for each boat (4 or more in succession)
- Bearing to new mark, plus (+) or minus (-) for longer or shorter length



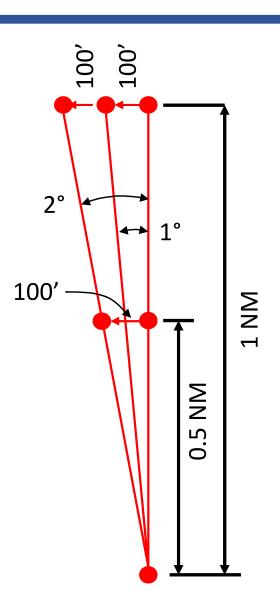




Course Change Rule of Thumb



- For one mile leg, moving mark 100' = 1° change
- Proportionality
 - Moving mark 200' = 2° change
 - For 0.5 mile leg, 100' = 2° change

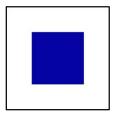


Shorten Course



- Shorten only at a Rounding Mark or Gate
- Signal
 - Two sounds before first boat crosses finish line

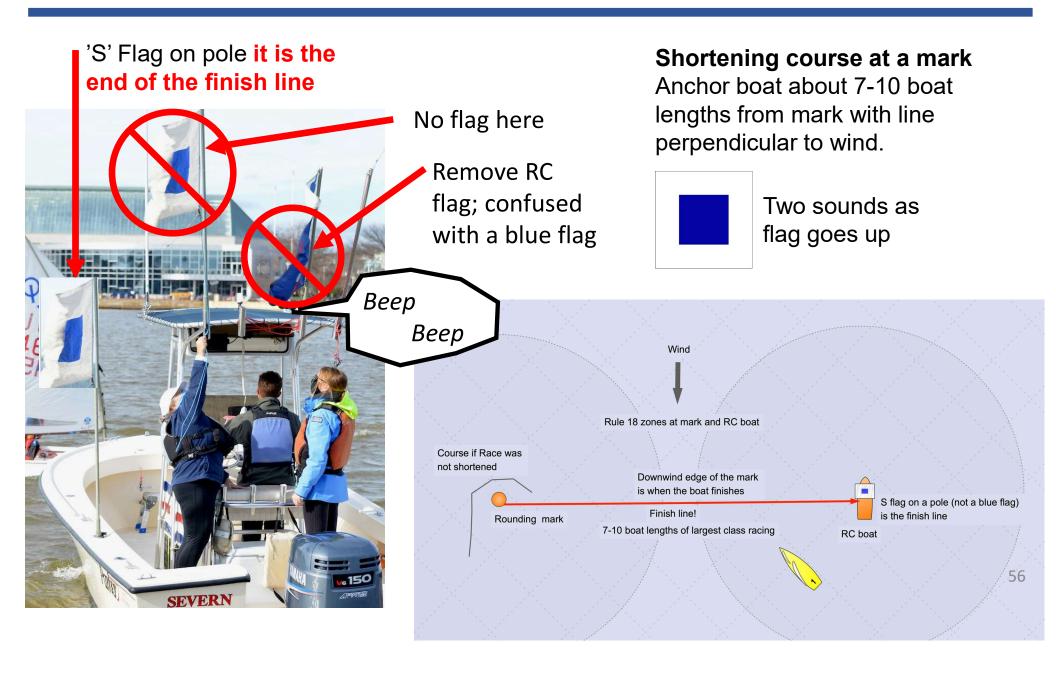
- Code Flag S



- A blue flag is never displayed when shortening course
- See next two slides for details on S Flag positions at Rounding Marks and Gates.

Shortening the course at a MARK





Shortening the course at a downwind GATE



S flag here

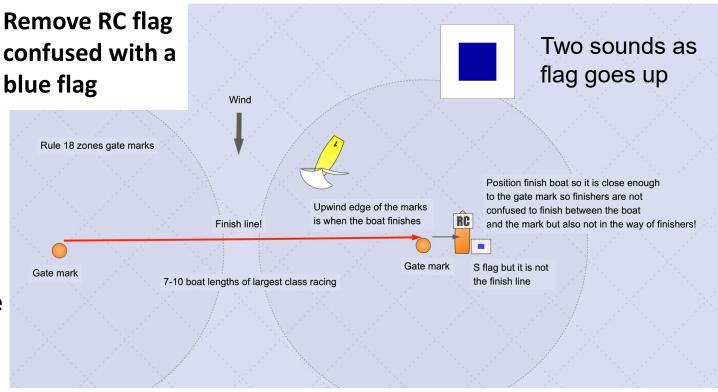
Shortening course at a downwind gate.

Locate boat outside, BUT CLOSE to one side of the gate (no more than one boat length) where you can sight down the line between the two gates.

Do not give the competitors any reason to think that they should finish between you and mark.



No blue flag on pole here. The course side of the gate marks is the finish line

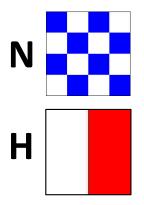


Abandon



- Abandonment signal flags displayed with 3 sounds
 - Can be abandoned from anywhere on course
- Code flag N alone Races started are abandoned; return to starting area
- Code flag N over H All races abandoned; further signals ashore
- Code flag N over A All races abandoned. No more racing today (most probable)







The Finish



- Finish line perpendicular to the wind between course side of pole with blue flag on RC boat and course side of mark
- Boat finishes when any part of hull crosses finish line
 - Not spinnaker, crew or equipment
- Leeward finishes
 - Difficult to see sail numbers when several boats overlap; help from mark or pin boat
 - May call out identifying features—"Crew with yellow jacket", "White spinnaker", "Blue hull", etc.
 - Then sort out sail numbers

Recording Finishes



- 1-2 people call finishes and use digital recorder; two people write finishes
- Write everything down "blue spinnaker", "yellow hull", "green hat", etc.
- Record sail/bow numbers in order of finish
- Record protests
- Compare finish sheets after all boats have finished
- Do not change a finish sheet make a clean, correct copy but preserve the originals
- Never erase on a finish sheet. To change, strike through error and write correction

Safety Issues







Code Flag Yankee with **one sound** to tell competitors to wear life jackets *Rule 40.1*

The PRO has the authority to tell the **RC members** and the **competitors** to wear life jackets!

Back At The Dock



Post Dock time and Time of the end of Protest Period on Notice Board

SSA Race Committee

Dock time

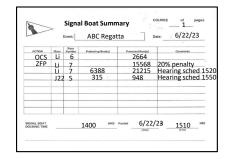
Date Time

End of Protest Time

Date Time

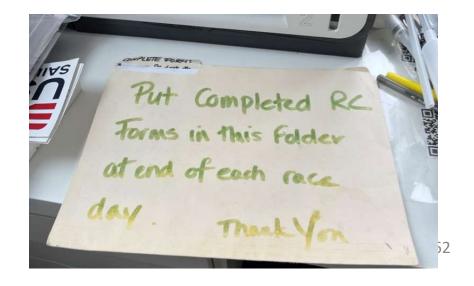
These forms must be posted on the Official Notice Board

Post Signal Boat Summary form on the Notice Board including Boats Scored OCS and other penalty scoring.



Put scoring sheets into the "Race Committee Forms" file folder on the desk in the Race office.

Submit to the Standing Race Committee Chair, an SSA Incident Report of any emergencies.



Back at the Dock



- Return equipment to office
 - Charge radios, laptop, iStart, AED
- Make sure marks and tackle are rinsed and returned to storage
- Check boats for safety gear, radios, batteries, etc. that might have been left onboard
- Turn off battery switch and ship's radios





Report damaged or lost equipment with a red tag (Basket in tool shop)

or

Go to the QR code on the Boat and navigate to the the equipment repair form





End of the Day



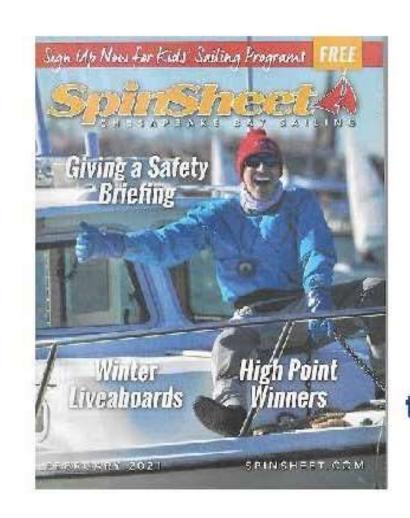
- Perform or assist with scoring
 - Post preliminary results
- Protests
 - RC member at known, set location to receive protests
 - Mark with time received; contact Protest Committee Chair
- Requests for Scoring Review resolved by race committee
- Debrief the RC; make sure the RC knows to get a free drink and socialize
- Remain at SSA until end of Protest Time Limit or until protests are resolved.





- Unit 1 Introduction to Race Committee
- Unit 2 Mark and Pin Boat
- Unit 4 When Things Go Wrong
- https://www.severnsailing.org/race-committee







to have as much fun as Jeff!

