



# SSA Race Committee Training Mark and Pin Boat

Home of One-Design Racing in Annapolis

2023 update

# Outline



- Gear
- Marks/Anchor Crates
- Wind/Weather Currents
- Communication with Signal Boat
- Communication with Competitors
- Setting and Retrieving Marks
- Anticipating Changes
- Shortening and Changing the Course
- End of the Day Cleanup



# Principles



- The RC is best when it is invisible and does not impact the outcome of the competition
- There is a fix to any problem
- Safety first





# Make Sure.....

- First order of business - **Boat starts and has fuel**
- Boat has a **mark inflator** if you are using inflatable marks.
- Attend the **RC meeting!**
- **Discuss with PRO** before you leave dock what they want from you!
  - **Level of information**
  - **Input on decisions**
  - **Radio channel**

**Exchange cell phone numbers  
with the PRO and DRO**

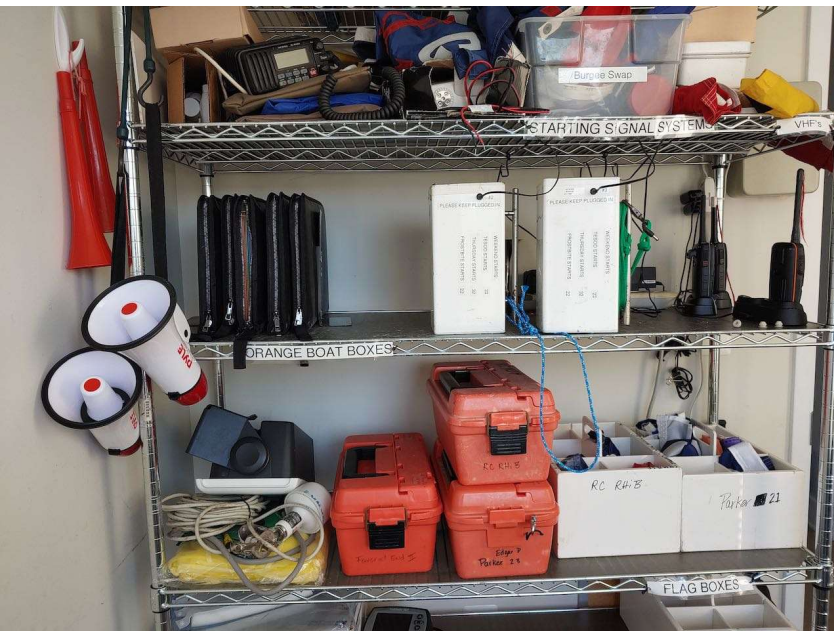




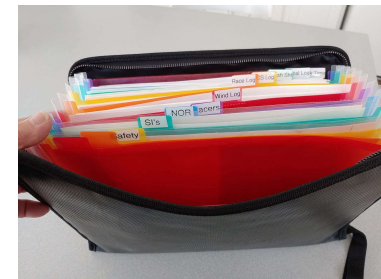
# Gear for Mark Boats

## Stuff from the RC Office

- Radio /White Boat box
- Orange Boat Box
- RC Folder with forms etc.

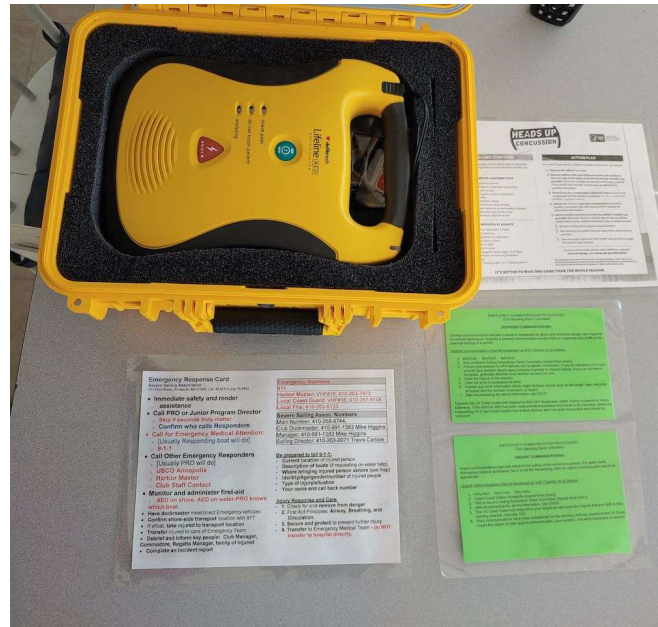


**PLEASE** use the ship's radio and bring your own as a backup. Use club's only if you do not have one.



**The DRO will tell you if you need anything else**

# Gear for Mark Boats – AED



- Put the **AED on a Mark boat** either the Parker 21 or Parker 23. **BUT never on a RHIB!**
- A back board is on the Edgar D (Parker 23) if needed.

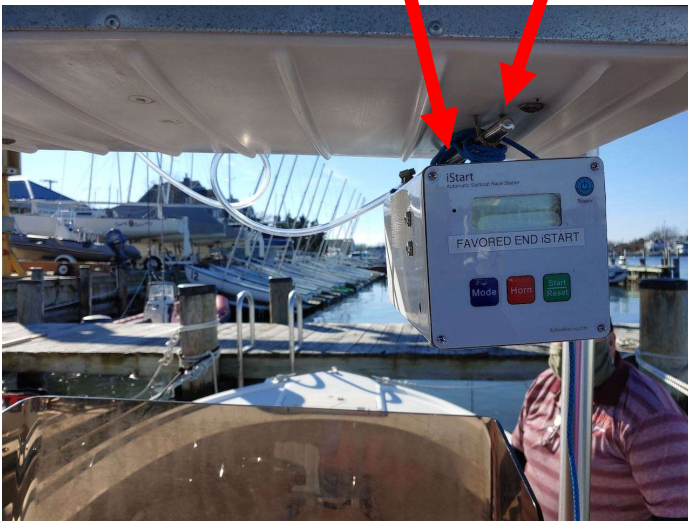
# Installing iStart on Hugh E Parker 21



1. Bow end of top bar inserted in eye ring.

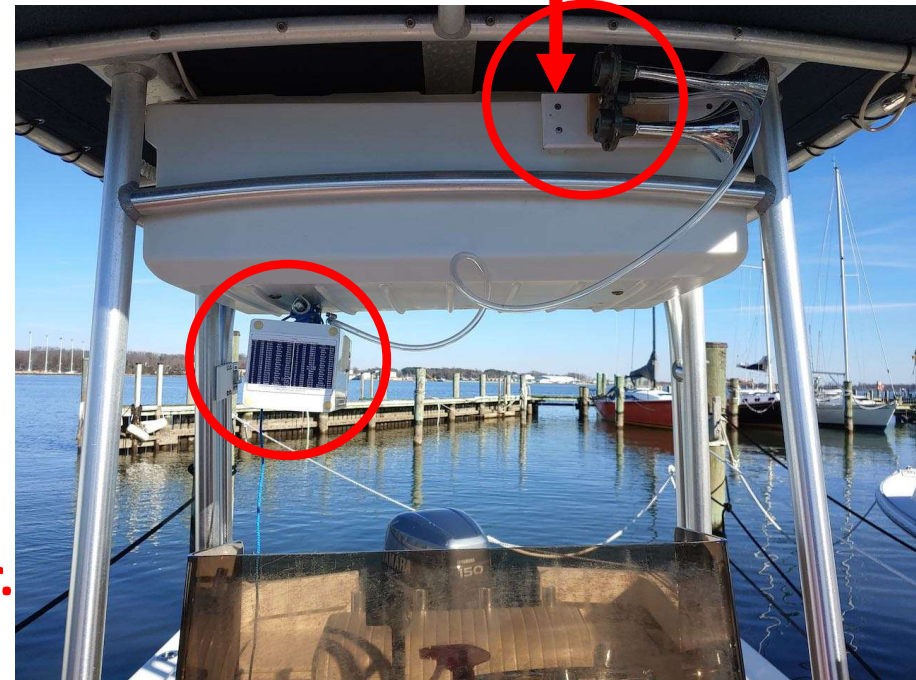
3. Connector line cleated inside overhead locker

2. Stern end of top bar connected to loop in line coming out of overhead locker.



**iStart mounted under T Top overhead locker.**

**Horn - Velcro on to pad on front of T Top**



# Launching RHIB (Rigid-Hulled Inflatable Boat)



1. CHECK Hull Plugs in transom before launching.
2. Check Battery switch is ON.
3. Check Fuel
4. Start engine as soon as you launch so that you can be aware of a starting issue.





# Ethan Cord (Motor Kill Cord)

Use of the Ethan Cord (kill cord) is MANDATORY on SSA boats. IMO Ethan Isaacs who lost his life because someone did not.



Let's never get to this press conference



# QR Codes



- All information about the boats is available through the QR codes – located near the helm and online at <https://club.severnsailing.org>. Go to Communication-Documents-RC Guidelines
- Each SSA boat has a different kill cord system
- Each boat has a different procedure for starting

***Read the QR code material before the race day or if any problems arise!***



# 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!**





# Marks / Anchor Crates

Assemble the marks and anchors you will need **per PRO instructions**

Color coordinated mark bridles and anchor crates

## Types of SSA Marks and ANCHOR CRATES



Tetrahedron

Red Crate



Yellow 3'  
Cylinder

Red Crate



Orange 3'  
Cylinder

Red Crate



4' Cylinder

Yellow Crate



5' Cylinder

Yellow Crate



Orange Ball

Green Crate



Flag

Green Crate



# Marks / Anchor Crates

Marks and anchor crates stored inside **storage space** along south wall of club building and **along fence** near the vehicle exit gate.

Use the trolley carts to bring mark crates to the boat dock.

## Question

What is the correct way to **drag** marks and other large equipment across the parking lot?

## Answer

**“NEVER drag anything”** is the correct way!



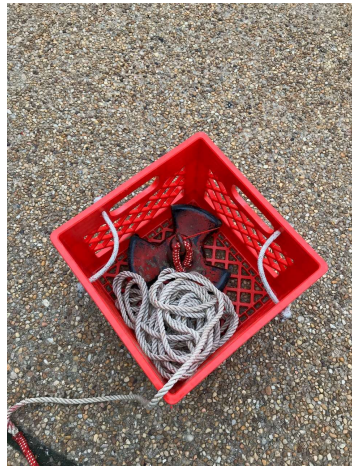


# Marks / Anchor Crates

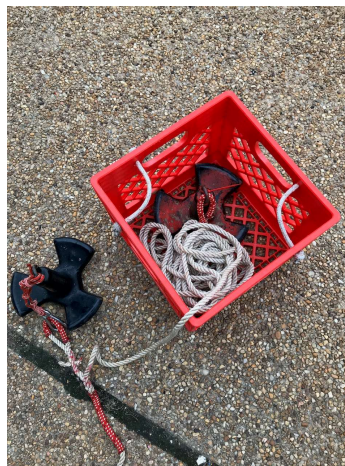
- Packing the anchor, line and counter weight in a crate. Always check that it is packed and always leave it correctly packed!



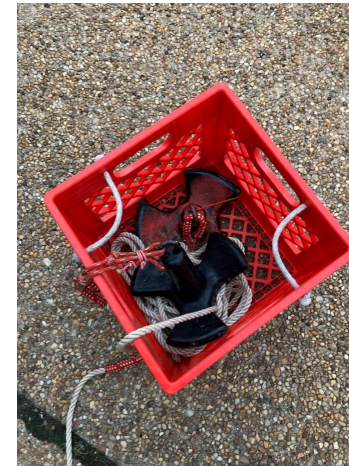
1. Anchor in crate.



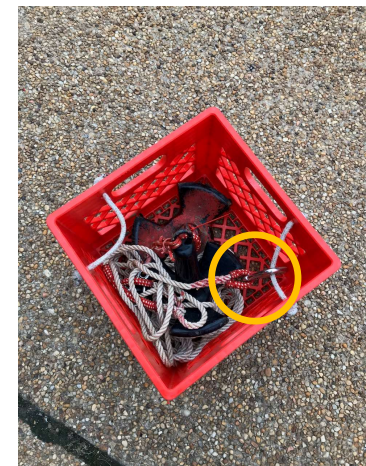
2. Flake line on top of the anchor. Be sure no line loops go under the anchor.



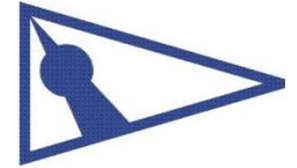
3. Line flaked ready for the counter weight.



4. Place Counter weight on top of the line. Be sure a counter weight is actually attached to the line!



5. Put rest of line on top of the counter weight and clip the line end on to one of the crate handles.

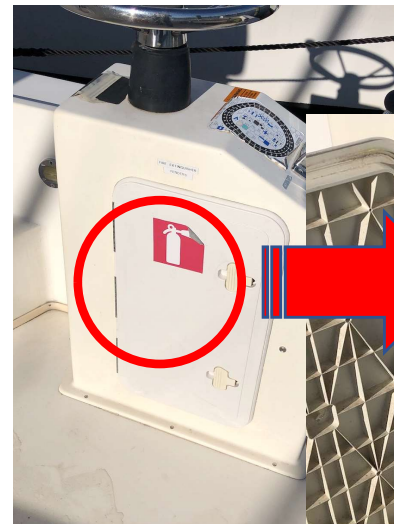
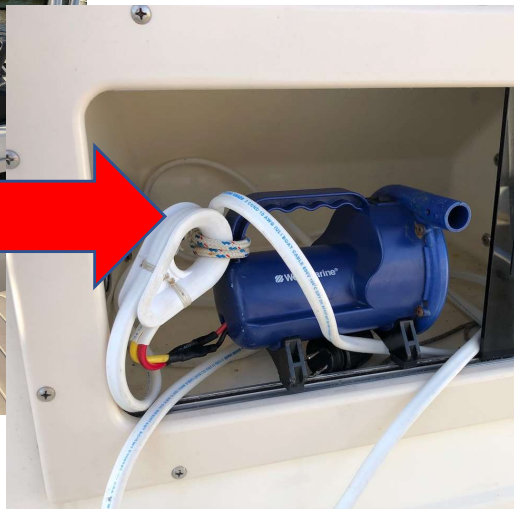


# Inflating marks

- Inflating marks. Where is the inflator?



Hugh E  
Parker 21



Edger D  
Parker 23



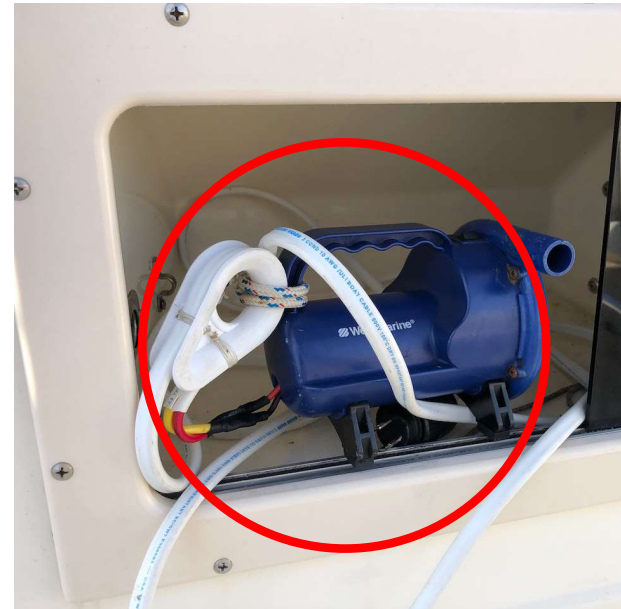
# Inflating marks



- Inflating marks. Where is the inflator?



***RHIB***



**In console**

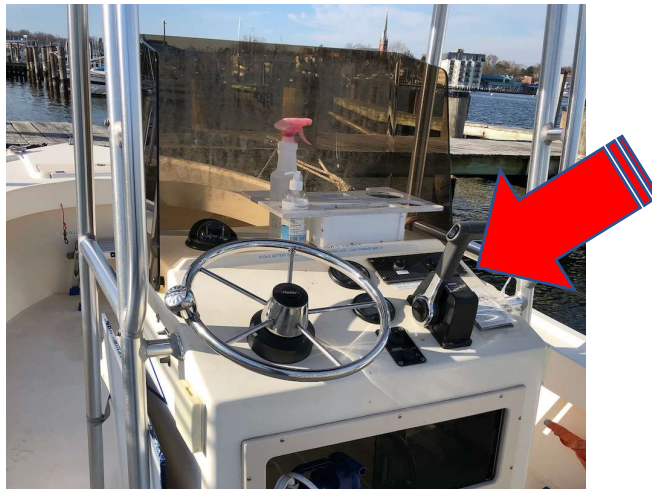




# Inflating marks

Connecting the inflator to electricity!

**Hugh E** - Plug in the Inflator at the steering station right side.



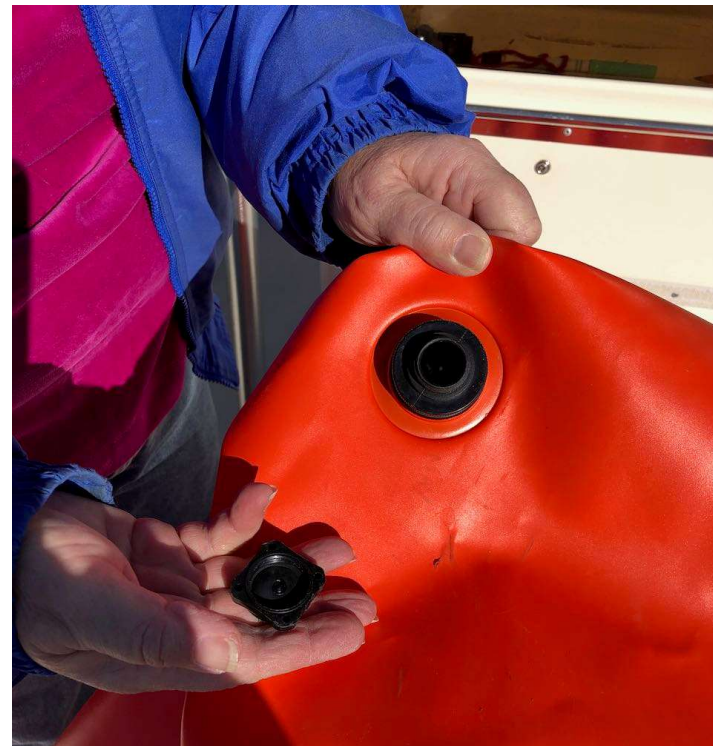
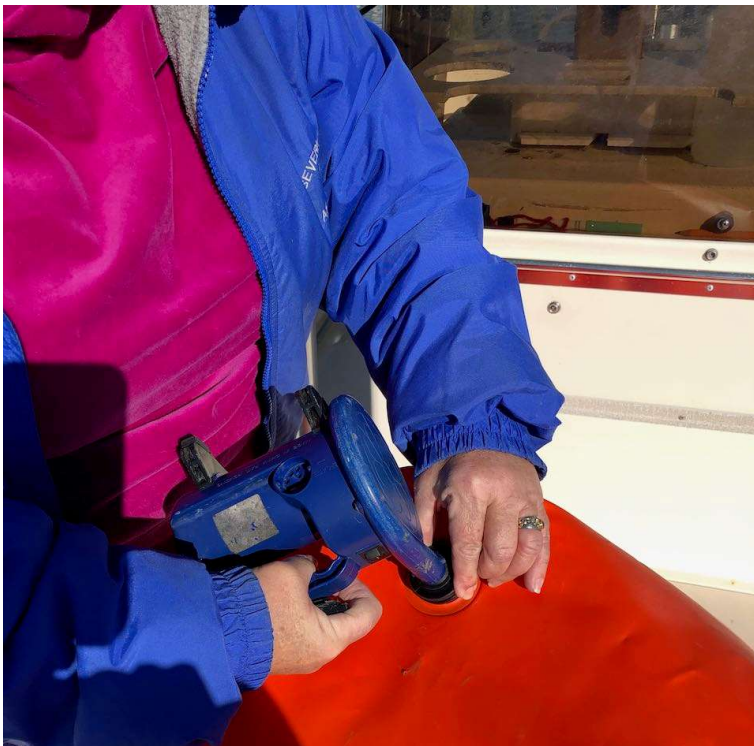
**Edger D.** Its all hooked up!



# Inflating marks

The screw top comes in **two pieces**.

The **top half is opened to inflate** and a internal flap valve in the lower half keeps air from escaping when you remove the inflator and put the cap back on.





# Deflating marks

Remove the top and bottom of the cap and the air will be released.

Push as much air out of the bag as reasonable to save space in the storage area. Replace the caps.

Some marks do not have the cool lower flap valve feature and require holding the flap valve down when deflating





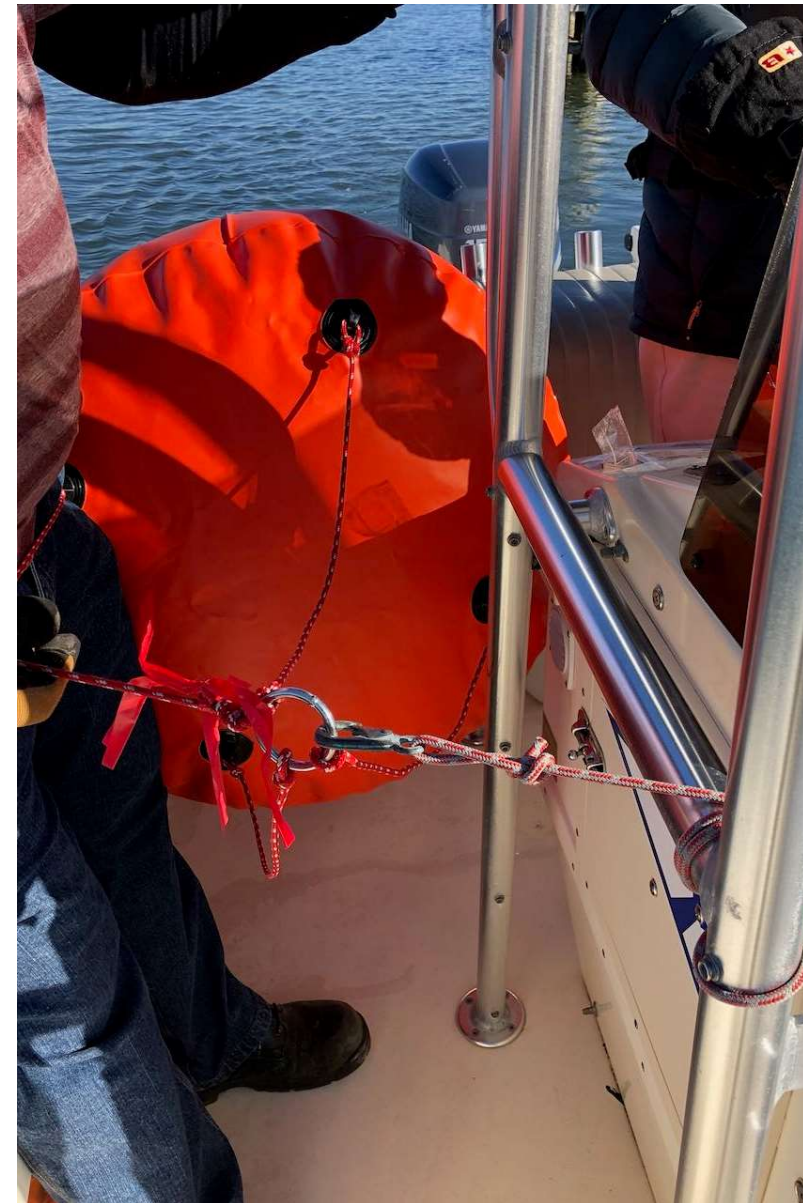
# Securing marks in the boat

Use the clip lines on the mark boats to **secure the marks** inside the boat while underway.

On really windy days or for **long runs at high speed** use additional lines to keep marks from flying around the boat.



An SSA Race Committee lost this mark (*never recovered!*) because it was not secured



# Towing marks



**NEVER, EVER TOW SSA marks!** particularly at high speed!

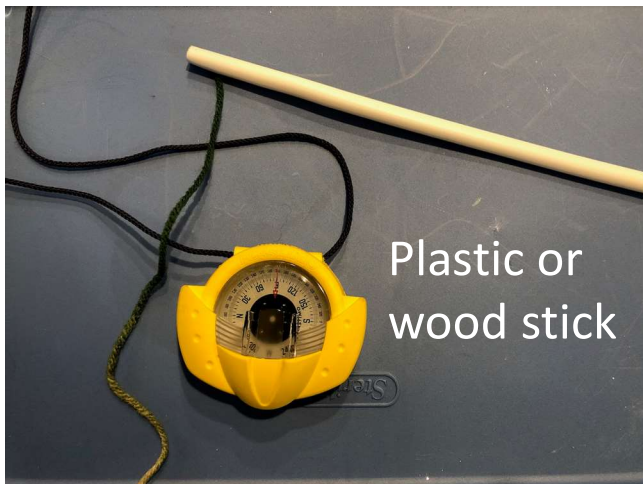
It abuses your equipment and the bridles will pull off the mark!



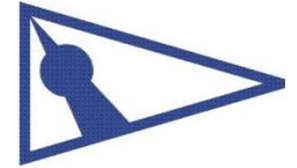
# Wind / Current / Weather

## Wind Direction and Speed readings

- Handheld compass with wind 'stick'
- Radio impact on compass readings
- Estimate wind speed from sea state or a digital wind speed device



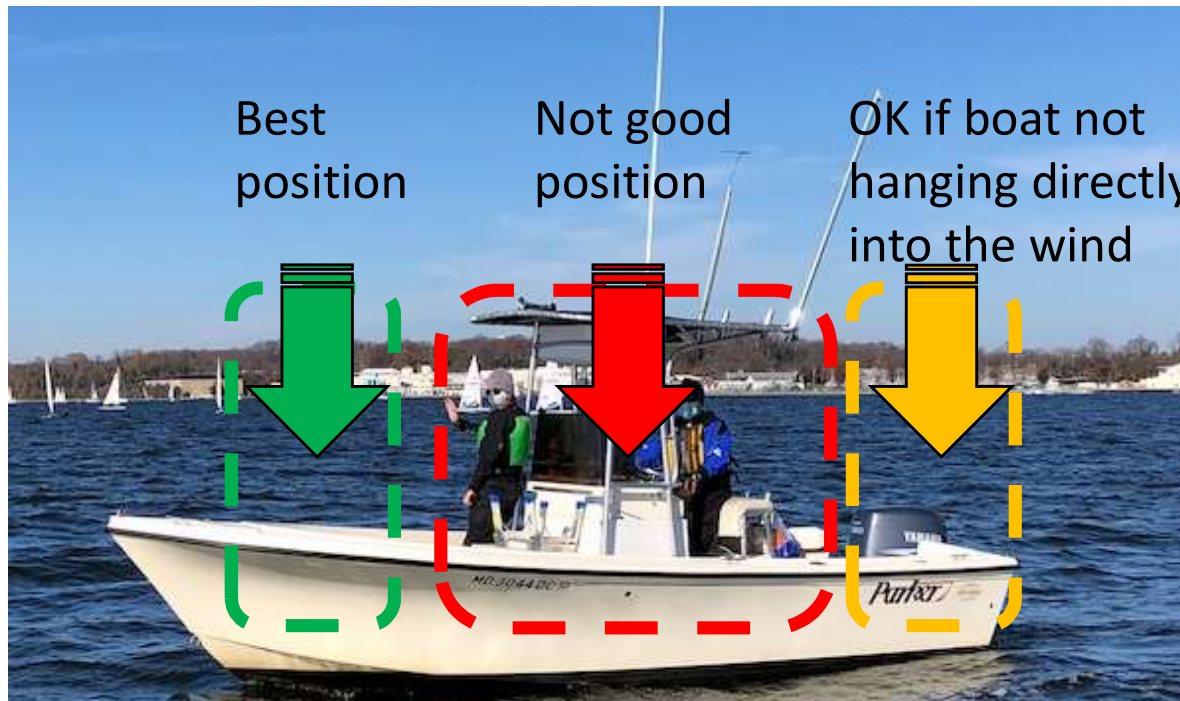
5-10 degree shift due to magnetic effect of the radio!



# Wind / Current / Weather

## Wind Direction and Speed readings

- Boat canopy / wind direction
- Recording wind readings over time



Take wind readings from the bow of any boat

Race Committee Wind Log

Event SUMMER DS Recorder J. URBAN

Date 8/10 Boat MARIE Page Number 1

TIME	VELO- CTY	WIND DIRECTION													
		30	60	70	80	90	100	110	15	121	125				
10:30	8														
10:35	8														
10:40	9														
10:50	7														
11:00	6														
11:10	5														
11:15	6														
11:30	5														
11:40	3														
WIND DICS		~~~~~													
SEA BUOY		~~~~~													
1:30	8														
1:35	9														
1:40	10														
1:50	12														
2:00	10														
2:15	11														
2:30	8														

Use the Wind Log

# Wind / Current / Weather



Current:

Your observations may be different from the RC boat



Watch mark current eddies



Watch anchored freighters



Current eddies



# Wind / Current / Weather



## Weather

- The mark boat often has lots of time with nothing to do. Checking on thunderstorm movement is a good second set of eyes for the Signal boat who is busy.
- The mark boat may be in a better position to see what's coming





# Water depth and traffic lanes

- Be aware of shallow water depth. **Use a boat hook to test depth**
- **Advise PRO** when they tell you to place a mark in a high traffic or shallow area.



Shallows



Traffic lanes

# Shortening the Mark Anchor Line



## **NEVER SHORTEN THE LINE!**

It makes a mess of the line for the next mark set.

A 60' line on a mark in 6 feet of water is **OK**.



# Communication with the Signal boat

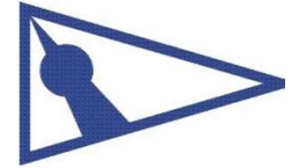


- Ask the PRO how much information they want.
- You are the remote eyes and ears of the PRO but **not in charge**.
- If the PRO wants your opinion **he/she will ask for it**.
- Radio Channel
  - PRO will set the channel. Check before you go and do a radio check as soon as you leave the dock.



*If you have an extra radio set it to **monitor CH 16***

# Communication with the Signal boat



## Use the Ships Radio vs Handheld (back up radio)

- Stronger signal (Keep on low power)
- Cockpit speaker
- But ships radio ties operator to a fixed location in boat



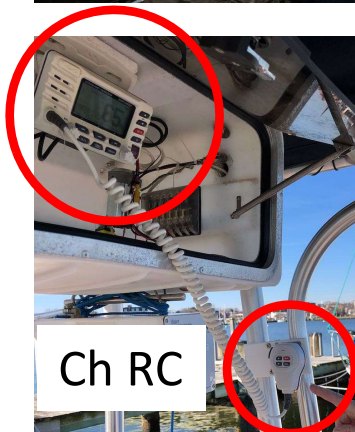
**Hugh E  
Parker 21**

Above the  
steering position



**Edgar D  
Parker 23**

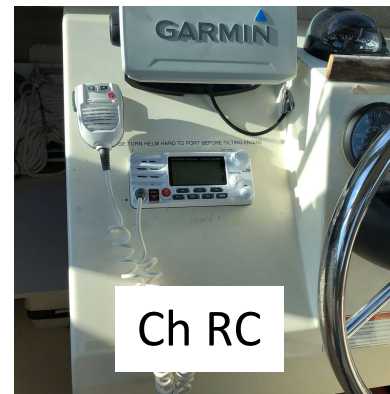
Two radios  
Inside cabin



Radio in overhead  
locker

Mic attached  
to top support

Ch RC



Ch RC



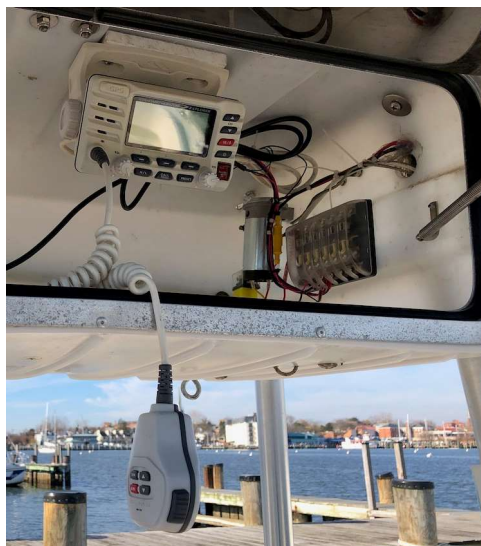
Ch 16

# Communication with the Signal boat



## Radio mistakes

- Holding mike too close to mouth.
- Speaking before you key the mike.
- Holding key after you finish.
- Radio on Hi or Low when the other is needed. Low Power should work most of the time.



On a windy day, hold radio so back is pointed towards wind to avoid wind noise across microphone

# Communication with the Signal boat



## Radio Protocol

**Avoid multiple calls out** when you don't get a response. It's a public channel! Two times is a good number then wait!

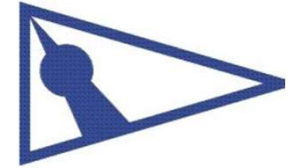
**Do not 'step'** on other calls in-progress

You are '**SSA Mark Boat**' or '**SSA Pin Boat**', not the name of your boat.

The main committee boat is "**SSA Signal**"

You are on a public channel and the **competitors may be listening**. Offer an opinion to the Signal boat, use your cell phone.

Do not call the Signal boat when they are busy with starts or finishes. **If they do not answer, they might be busy.**



# Setting Marks

Never Tow **Any Marks** except when streaming

Position the mark per the **PRO's** instructions

Most people are quite bad with **spatial distance relationships** particularly with moving objects at the distances we encounter.

Most people **under estimate** distance and **over estimate** speed

**RELY** on the PRO





# Setting Marks



- Step one: Be sure mark **tackle is packed in its crate correctly!**
- Step two: Deploy **mark and counterweight first** from back of the boat.

**Very important: Keep line away from motor to avoid fouling the prop!!!**

# Setting Marks



- Step three: With boat moving, **SLOWLY pay out line at same speed as boat is moving. Keep line with tension.** Mark should not be moving.
- Be sure line is streaming past end of boat and not near engine! **Tell boat driver** if line starts to be under boat or does not have line tension.

# Setting Marks



- Step four: Keep paying out line at the **same speed as the boat is moving forward**.
- REPEAT! Be sure line is **streaming past end of boat and not near engine!** Tell boat driver if the line starts to be under boat or does not have line tension

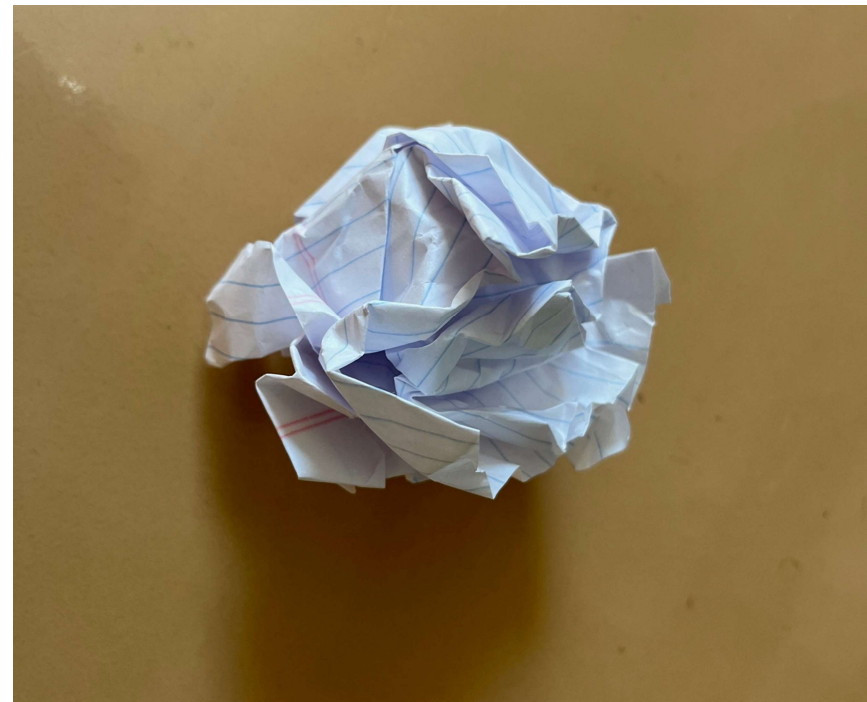
# Setting Marks



A cool way to get an offset or gate mark very close to 90 degrees to the wind from the first mark you have set when you do not have a second boat to call the position.

The crumpled paper ball method

Crumple up a sheet of paper into a ball

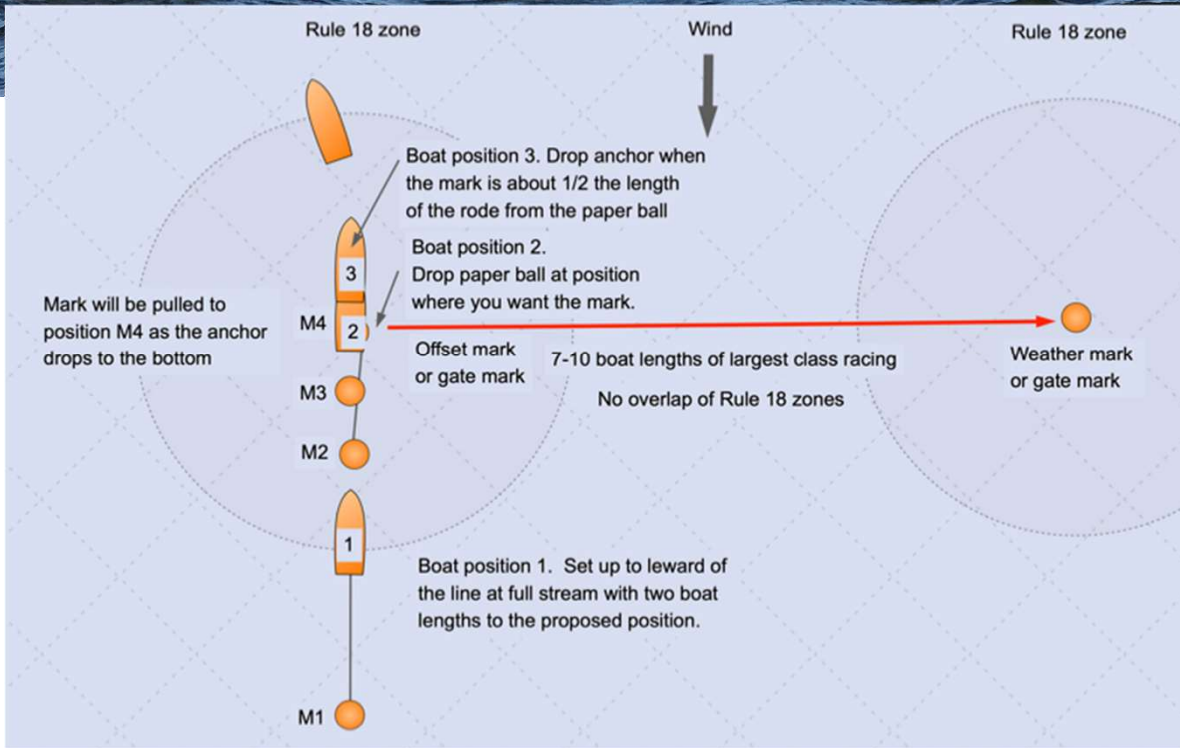
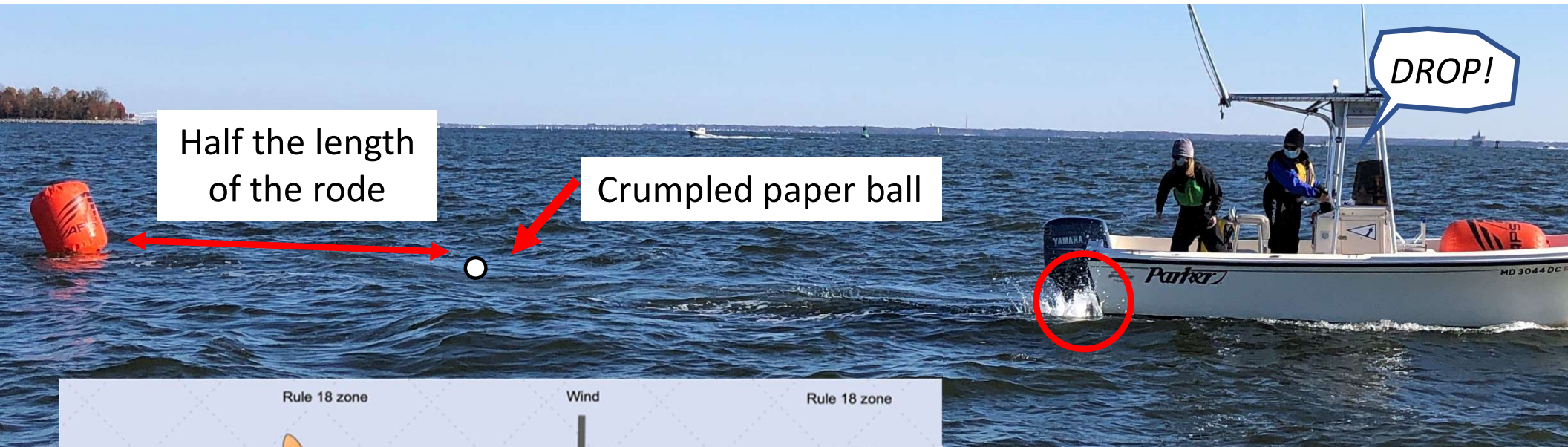


# Setting Marks



- Step five: When anchor line is at full stream, hold the anchor in your hand. Tell driver **“At full stream”**
- Hold in position with the **anchor over the edge** of the boat until ordered to drop anchor.
- **Do not have any extra line** coiled in your hand!

# Setting gates and off set marks



When setting an offset mark, drop mark anchor when offset mark reaches the paper ball.

# Setting Marks



- Step Six: On command from the **PRO** over the radio to **"Drop,"** drop anchor into the water.
- Just let it go beside the boat, **do not toss it.**

When current is a factor and light wind, stream line **into the strong current which may be streaming down wind!**

# Re-Setting Marks by Dragging the Anchor



- When dragging into the wind, the mark will drift back by **twice the line length after you set it!**
- **BE CAREFUL OF ANCHOR LINE** under boat or fouled in prop.
  - Crew - **MUST communicate with the driver.**
  - Driver - Engine into idle immediately



Crew must be looking back and down at the mark's anchor line!  
AND in the back of the boat!



# The Ultimate Mark Boat Foul



- **Don't get a line wrapped around the prop.** Both driver and crew work as a team to keep this from happening!
- **A prop wrap is a team fault.**

# Retrieving Marks



1



2



3

**Start at bow** to get the line with boat hook.

Then **move toward the stern** to see line and engine as you are pulling it in.

Watch the ANCHOR LINE to avoid going under boat or wrapping on the prop

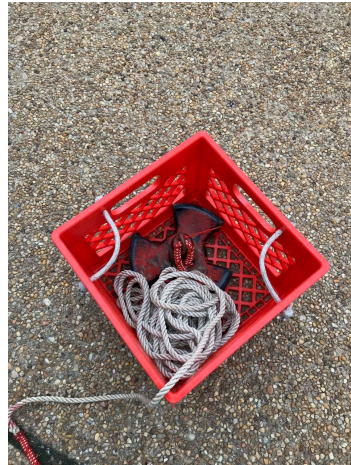
# Retrieving Marks



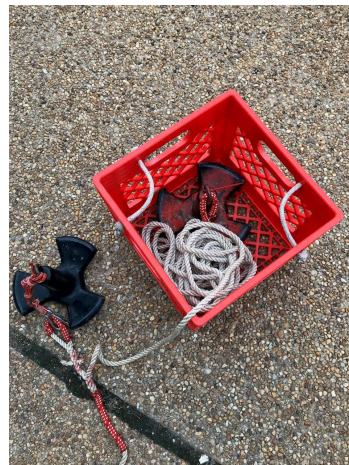
- **Repack crate** as soon as you get the mark back in the boat!



1. Anchor in crate.



2. Flake line on top of the anchor. Be sure no line loops go under the anchor.



3. Line flaked ready for the counterweight.

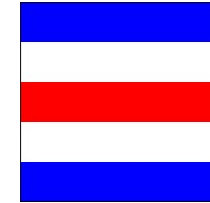


4. Place Counterweight on top of the line.



# Flags / Sound signals

Change course **direction** to next mark



Charlie 'C' Flag

**Multiple SHORT sounds (4-5 beeps)** before first boat rounds the mark and repeated as appropriate so all boats are alerted!

Compass course to next mark.

*Beep Beep Beep  
Beep Beep*



**NEVER** sound the horn just 1, 2 or 3 times. That means something else!

# Flags / Sound signals



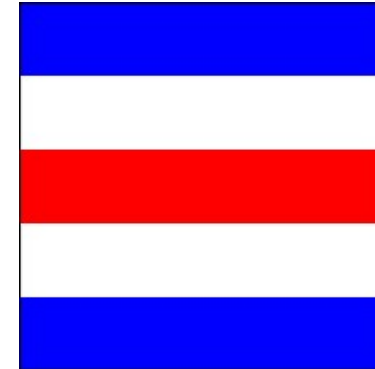
Change course length to next mark



Longer



Shorter



Position boat so all competitors can see boards and hear sounds



Beep Beep Beep  
Beep Beep

## Charlie 'C' Flag

Multiple sounds before first boat rounds the mark and repeated as appropriate so all boats are alerted!

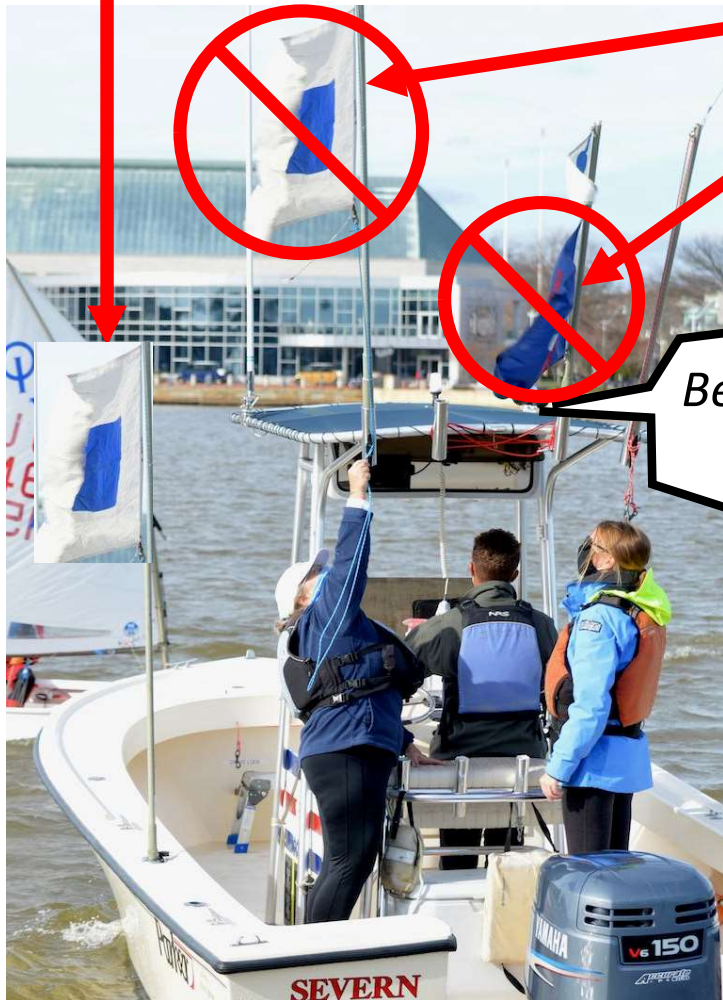
+ or - sign

If the course length is shortened but not the direction - **Make Numbers all Black**

# Shortening the course at a MARK



'S' Flag on pole **it is the end of the finish line**



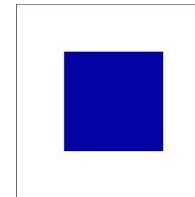
No flag here

Remove RC flag; confused with a blue flag

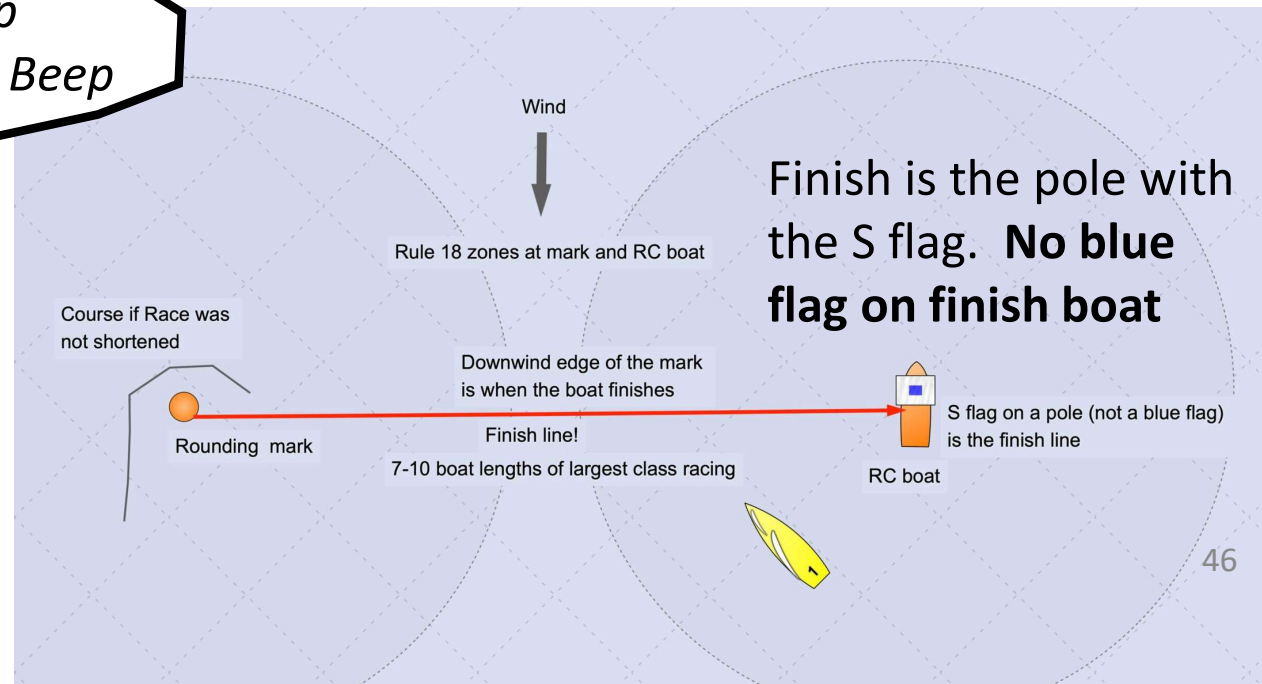
Beep  
Beep

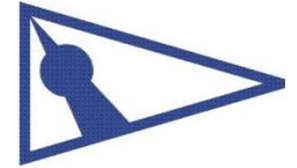
## Shortening course at a mark

Anchor boat about 7-10 boat lengths from mark with line perpendicular to wind.

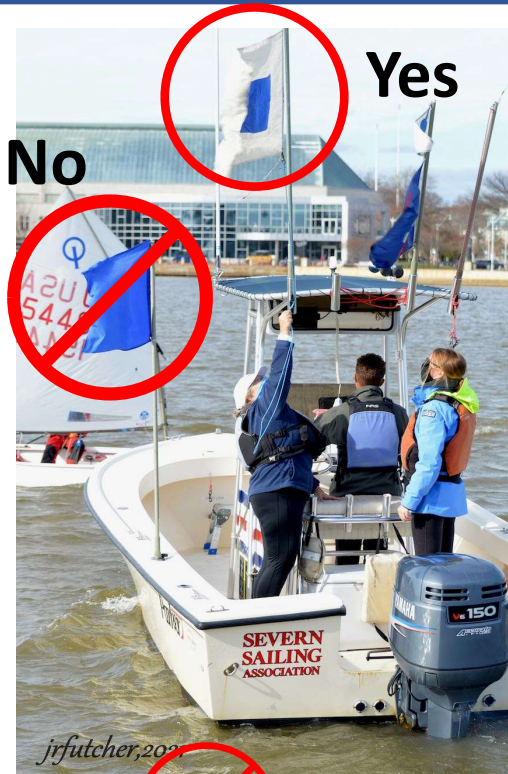


Two sounds as flag goes up



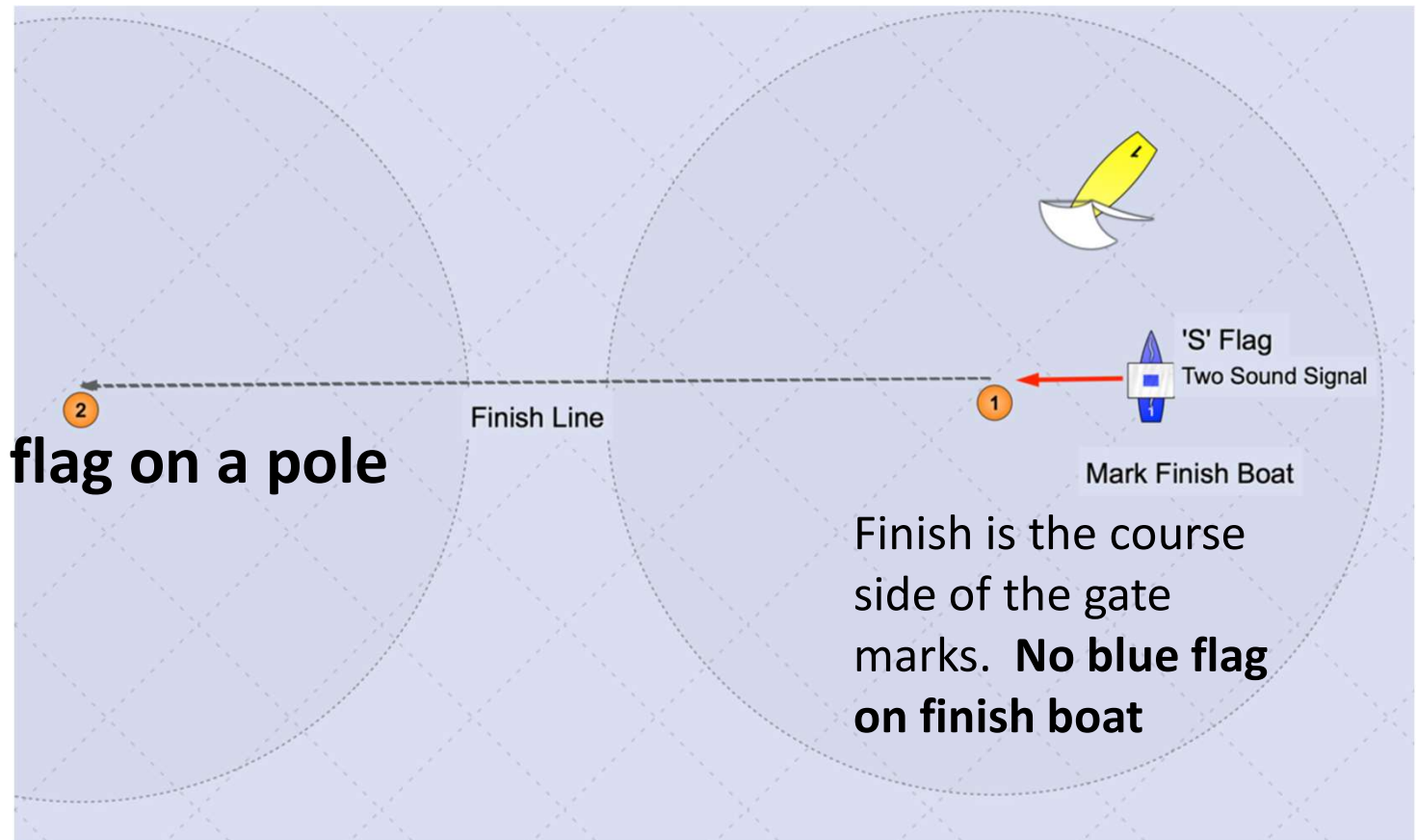


# Mark Boat shortening at a Gate



## Shortening course at a downwind gate.

Locate boat outside, BUT CLOSE to one side of the gate 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.



# Pin Boat Calling Pin End of the Line



- **Discuss with PRO** how they want you to report OCS boats
- **Write down** everything you see.
  - Maintain steady position about **one boat length from mark**.
  - Keep RC boat off the **port layline** coming into the start line and the **starboard layline** exiting the starting area.



# Missing or Drifting Mark – Call Mike



If a mark drifts and there is no time to retrieve it or the mark is simply missing, the Mark boat can become a temporary mark by **flying the M (Mike) flag** with **repeated sound** on horn.

Mark boat does not have to be anchored if time is critical. Just make best effort to stay in one place.



Always 4 or more sounds.  
**NEVER 1, 2 or 3 sounds!** This means something else.

# Communication with Competitors



## DO NOT answer any question

Gives information and potential unfair advantage to competitor

## You observe broken rule?

If you see something that may be an infraction of the rules, write down the particulars of the incident and tell the PRO. **DO NOT TELL THE COMPETITORS**

Communication with the PRO on a rules incident is best done by **cell phone**. Competitors may be monitoring your radio Channel, even a back channel!





# Offering assistance

---

Mark boats will be monitoring the race area for boats that may appear to need assistance.

**Approach the boat and stand by!** Notify Signal of the situation details.

Proceed to **assist only if requested** by the boat skipper or crew. **Aiding a boat will mean the boat is disqualified** from the race in progress!



# Temporary Anchors for Disabled Boats



## IF YOU NEED TO REMOVE THE CREW FROM THE BOAT

- Temporary anchors are on all RC boats if needed to keep the boat from drifting after the removal of the crew.



# Anticipate the next action

---

Watch the wind and course axis

Are races too long or too short?

Weather and PRO trying to get in one more race!



**Think ahead**, get the next mark ready, moving the Mark Boats position favoring where you expect to go next.

But **do not execute a significant change** in position without the PRO agreement.



# Anticipate the next action

Communication with Signal and PRO: Remember that any **discussions may be monitored by the fleet.** **Be careful what you say!**

Speed and timing of any change: Be aware when it is critical to **execute rapidly**: time constraints such as “before the first boat rounds the next mark”.



# Cleaning up

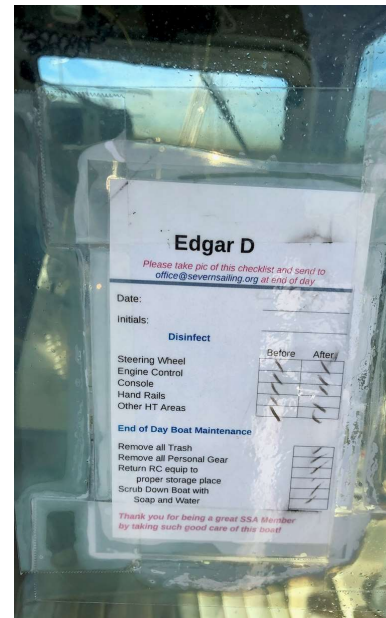


Return and clean equipment

Repack mark crates

Clean boat, fill out the cleaning list

Check dock lines



# Cleaning up



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





# Have a free RC drink and recap day with new friends?



- A good time to **recap the day** with the other members of the RC.
- **Tell the DRO** when you think you are finished for the day





# Additional RC Training Courses

- Unit 1 - Introduction to Race Committee
- Unit 3 – Signal Boat
- Unit 4 - When Things Go Wrong



*Training videos and presentation charts are posted at <https://www.severnsailing.org/race-committee>*

