



# Race Officer Training

## Club Race Officer

Ralph Singleton RRO

# Race Management Training Scheme

- ◆ Club Race Officer RYA
  - ◆ One day seminar
- ◆ Club Race Officer+ RYA
  - ◆ CRO Cert. + Two day seminar; written test
- ◆ Regional Race Officer RYA (Member)
  - ◆ CRO Cert. + Two day seminar; written test; submit sailing CV
- ◆ National Race Officer RYA (Member)
  - ◆ RRO Cert. + submit sailing CV
- ◆ International Race Officer ISAF

# Race Management Publications

- ◆ ISAF Racing Rules of Sailing
  - ◆ including the Standard Sailing Instructions Guide
  - ◆ including the Standard Notice of Race Guide
- ◆ The Club Sailing Instructions
- ◆ ISAF Race Management Manual
- ◆ RYA Race Management Newsletter

# Club Race Officer Seminar

- ◆ Module 1 - Club organisation
- ◆ Module 2 - Before the start preparation
- ◆ Module 3 - The start, the race
- ◆ Module 4 - The finish; Post race tasks and evaluation

# Terminology

- ◆ A signal (flag) is always DISPLAYED
- ◆ A signal that is displayed is at some time REMOVED
- ◆ These are the terms used in the preamble to 'Racing Signals'
- ◆ Use these terms at all times!

# Module 1

## Club Organisation

## *Group Discussion*

- ◆ *How does the club organise its Race Management?*
- ◆ *Does the system work?*
- ◆ *What are the main difficulties?*
- ◆ *Where can it be improved?*

# Club Race Management

Is designed to:

- make the most of the club organisation
- give member satisfaction - good sailing
- prepare for events requiring greater expertise
- Give members the chance to see the other side of racing



# Who are the members?

Club members fall into three distinct groups

- ◆ Beginners / Learners
- ◆ Experienced recreational racers
- ◆ The Open Meeting experts

# Learners (of all ages) require

- ◆ Space

- ◆ no-one carving them up

- ◆ Tolerance

- ◆ while they learn

- ◆ Chance to finish the race

- ◆ without being cursed by the Race Officer

# Experienced recreational racers require

- ◆ Enjoyable racing
- ◆ Competitive sailing at their level
- ◆ A regular pattern to the racing
  - ◆ don't want to have to think too much!
- ◆ Time to talk about the race in the bar

# Open Meeting experts require

- ◆ Competition in which they stand a fair chance of winning
- ◆ Perfect organisation
  - ◆ accurate start lines
  - ◆ true beats
  - ◆ correctly angled reaches
- ◆ Emphasis on racing and winning
  
- ◆ Remember - for many of these, club racing is only a training session, but it must be good

## *Group discussion*

- *How does your Club communicate with its members?*
- *Are the methods used effective? Do members react positively?*
- *Can the dissemination of information to members be improved?*
- *Do you consider the three points above ?*

# To give competitor satisfaction, the club organisation needs to

- ◆ Communicate efficiently
- ◆ Follow a regular pattern in its organisational structure
- ◆ Have an efficient method of encouraging members into taking and accepting responsibility
- ◆ **GET AWAY FROM THE 'ONE-MAN BAND'**

## *Group discussion*

- ◆ *Risk assessment is carried out by the Club when producing it's own club sailing programme.*
- ◆ *What are the areas where your club needs to assess the risks?*
- ◆ *Has CVLSC carried out such a risk assessment?*

# Safety on the water

- Clubs should be aware of the risks involved when;
  - racing fast and slow boats together
  - mixing large and small boats in the same fleet
  - the type of course configurations that may cause problems when separate fleets race round the same marks.



# Module 2

## Before the start preparation

# Race Officer Duty - Preparation

- Long before the day
  - go on duty with a good race officer
  - Observe – take role as assistant race officer
  - make notes

# Race Officer Duty - Preparation

- ◆ D-day minus 7
  - ◆ Contact Sailing Secretary / Race Manager (or be contacted)
  - ◆ Get a copy of the Club's Race Management Guide
  - ◆ Check
    - ◆ programme is to run as scheduled
    - ◆ race team members are all available
    - ◆ experience (balance) of team is OK
    - ◆ all equipment is operational

## *Group discussion*

- *What starting equipment would you expect the club to supply?*
- *What personal equipment does a Club Race Officer need to provide?*

# The Race Officer's bag

- ◆ sunscreen
- ◆ seasickness tablets
- ◆ aspirin
- ◆ insect repellent
- ◆ shackle key
- ◆ duct tape
- ◆ memo recorder
- ◆ batteries
- ◆ pencils, pens
- ◆ burgee
- ◆ cotton wind indicator
- ◆ neck towel
- ◆ fingerless gloves
- ◆ woolly hat, baseball cap
- ◆ recording sheets & plain notepad
- ◆ clipboards (2)
- ◆ Rule Book
- ◆ SIs for the event
- ◆ VHF radio
- ◆ Mobile phone
- ◆ binoculars
- ◆ gas air horn
- ◆ mouth-blown horn
- ◆ whistles (2)
- ◆ anemometer
- ◆ hand-bearing compass
- ◆ GPS
- ◆ complete flag set (including orange, black, red, green & blue)
- ◆ waterproofs
- ◆ buoyancy aid
- ◆ snacks (food & drink)

# Race Officers Equipment

- 💧 The previous slide shows what could be needed !
- 💧 Normally the Club provides everything
- 💧 However binoculars are usually missing or damaged
- 💧 The same goes for pens / pencils and scrap paper
- 💧 Be prepared for using committee boat
- 💧 Wet weather gear ( may need to help out with rescue if conditions become extreme)

# Race Officer Duty - Preparation

## 💧 D-day minus 5

- 💧 Check personal equipment
- 💧 Re-read Racing Rules -
  - 💧 Part 3
  - 💧 Racing Signals
- 💧 Re-read Club Sailing Instructions

## 💧 D-day minus 1

- 💧 Watch TV weather forecasts - get a picture of what is happening, fronts etc
- 💧 If bad weather is predicted then arrange additional safety boat coverage
- 💧 Summer area restrictions

# Race Officer Duty - Preparation

- Start minus 1-2 hours
  - Arrive at Club with latest forecast
  - Who is monthly race manager
  - Note wind direction at Club
  - Who is back up fleet
  - Unlock/prepare equipment
  - Check all boat crews have arrived and that they have checked their craft and its equipment
- Check that all starting equipment is in order
- Complete radio checks
- Go on the water and check wind again from as far downwind as possible
- From forecast and current observation predict wind strength and direction at start-time
- If too strong/light prepare to postpone

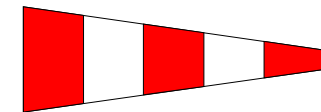
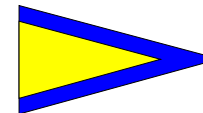
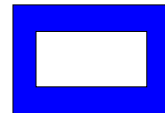
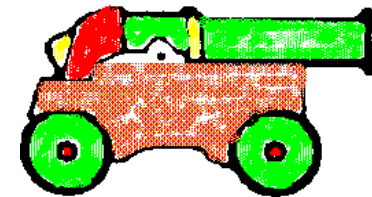
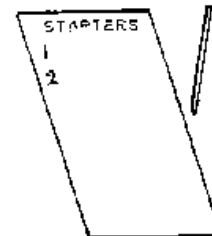


# PRO and Monthly Race Managers

- ◆ PRO oversees all the clubs race management
- ◆ Monthly managers have been appointed to help race officers who often only do one duty a month
- ◆ Seek advice if necessary
- ◆ Only the monthly manager should help you with course layout. “ Too many cooks.....”

# Pre-Start Preparation

- Patrol craft afloat and ready
- Watches ready
  - wound / batteries OK
  - set to correct (real) time
- Recording Sheet ready and pencils sharp
- Guns ready
- Flags bent on to halyards



# Module 3

## The start, the race

## *Group discussion*

- ◆ *The Sailing Instructions are one method of communication between the Race Officer and the Competitor.*
- ◆ *What is the second and equally important method of communicating your intentions to the competitor when on the water?*
- ◆ *How do you utilise this method efficiently?*

# Courses

- 💧 not all course suit all boats
- 💧 club fixed lines can predetermine the course
- 💧 low water sometimes restricts the course
- 💧 a windward start is a always preferable
- 💧 a true beat is always welcomed

# Classic Courses

- these assume clear air and water
- the original Olympic course
- triangle or triangle / sausage

# Courses

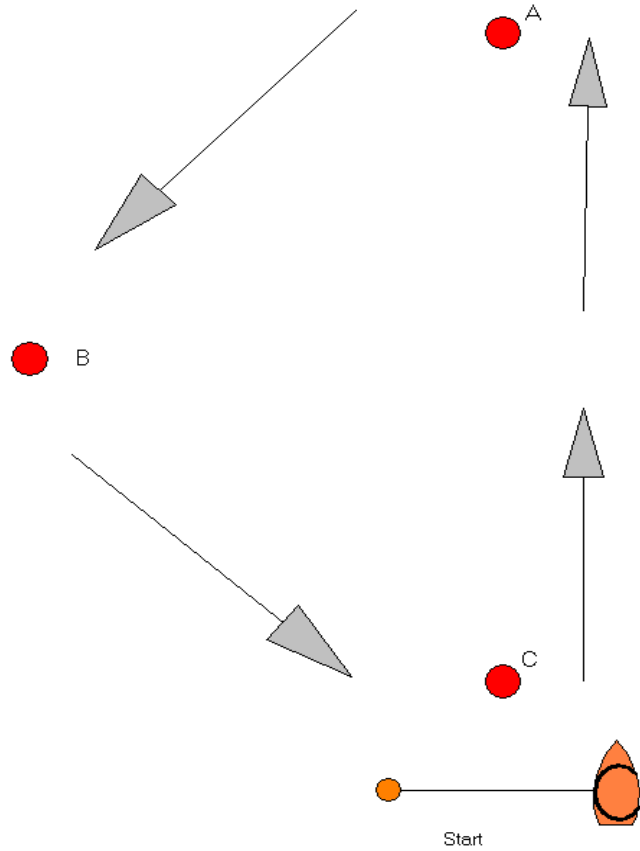
- Trapezoid (new Olympic course)
- windward / Leeward with variations
- W or M course (standard board sailors course)

# Courses

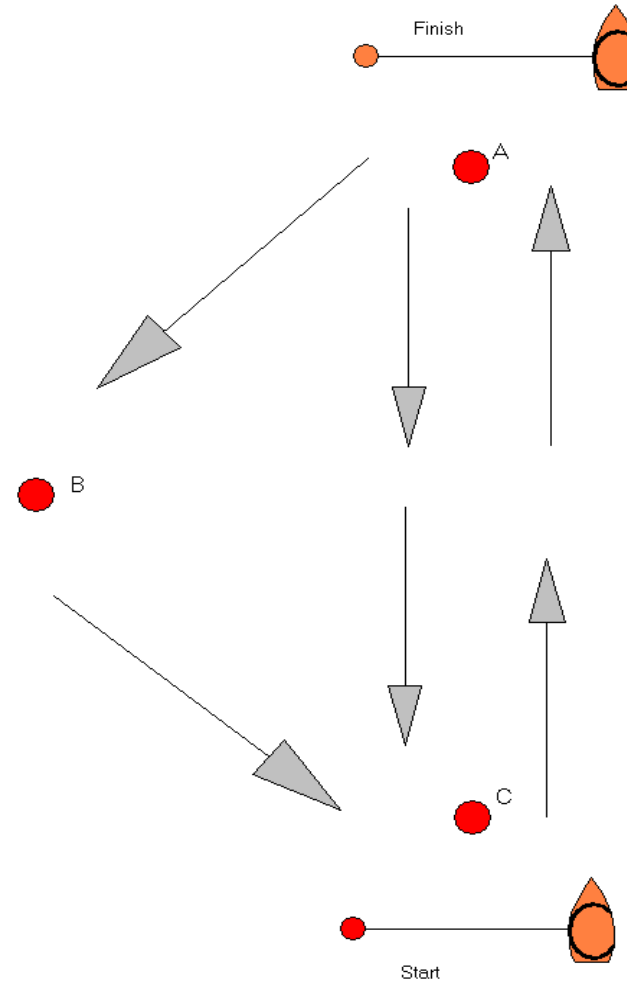
- Windward / Leeward with variations
- Mix of beats, reaches and if possible a run
- Don't be frightened to move marks
- Consider length of each lap for each type of fleet
- Where to start / finish ( Course does not have to include gate)



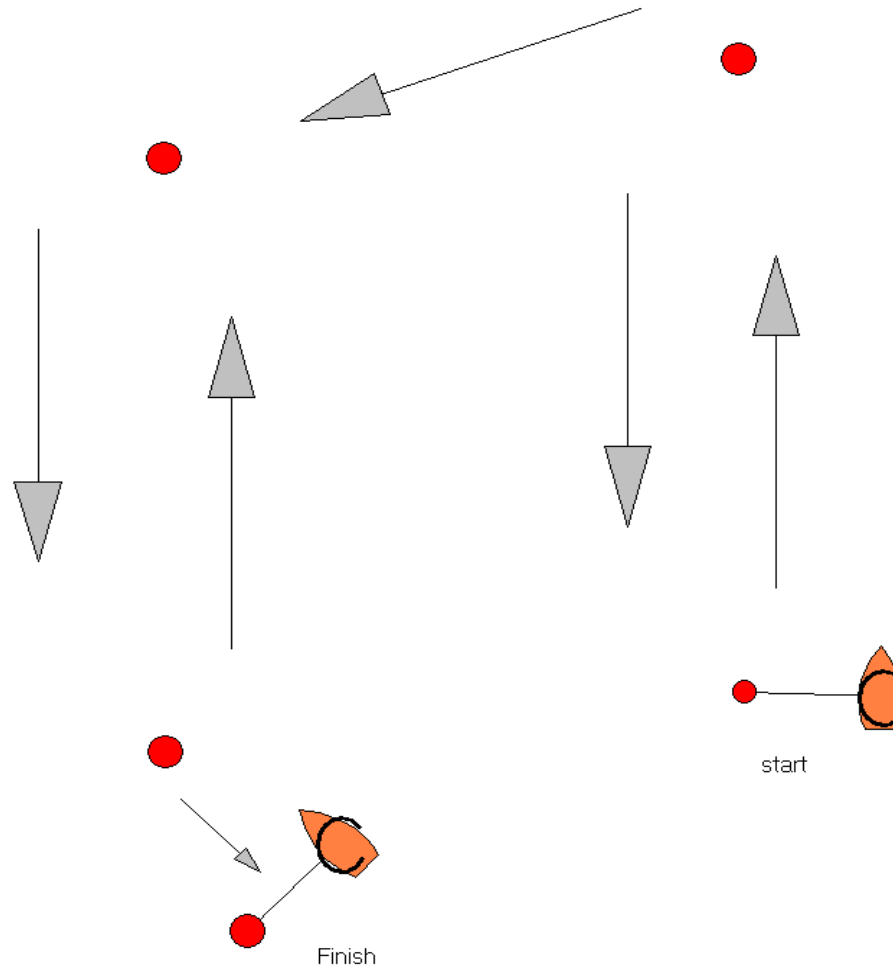
Triangle Course



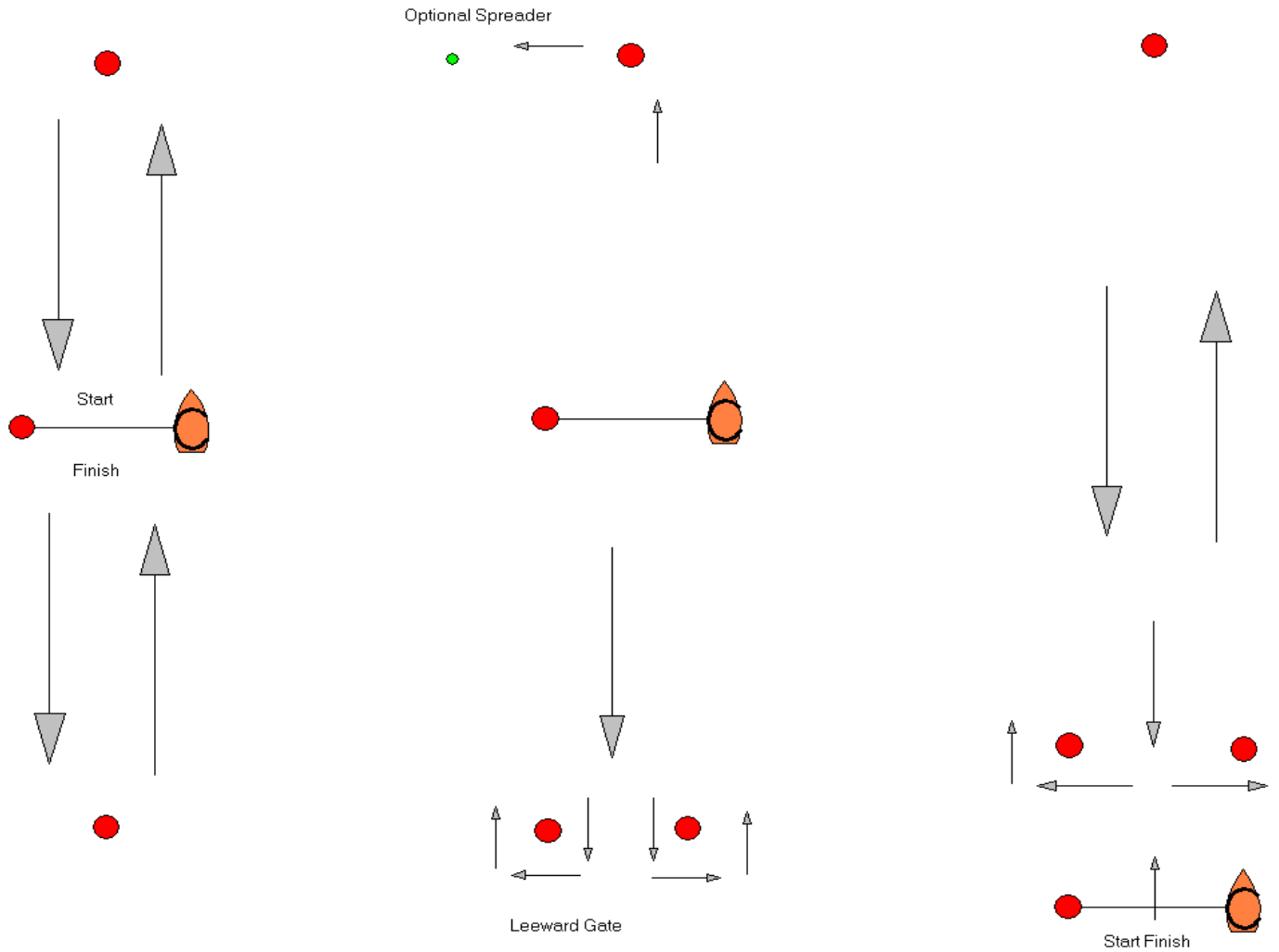
Triangle / Sausage (old olympic)



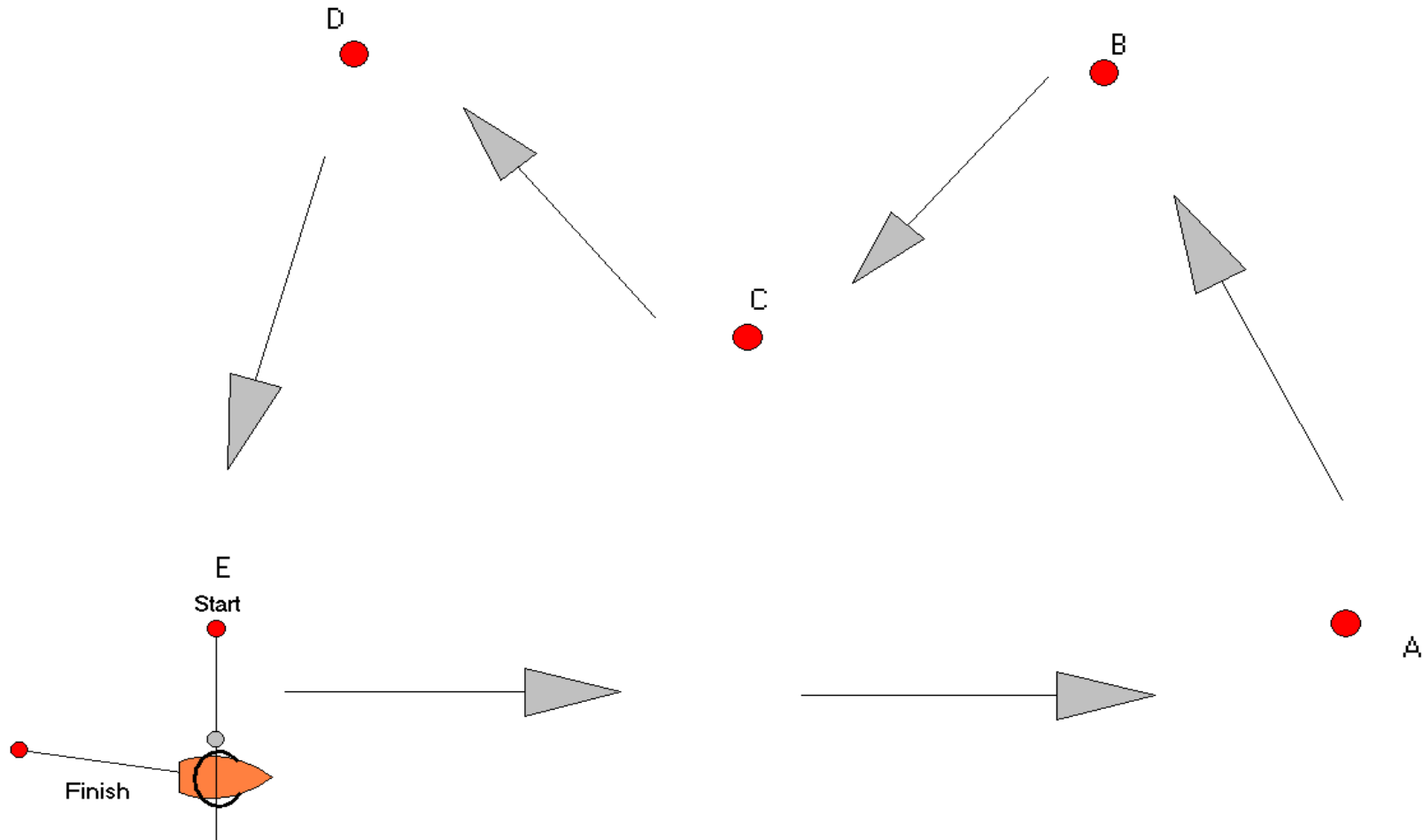
# Trapezoid (or Olympic) Course



# Windward / Leeward variations



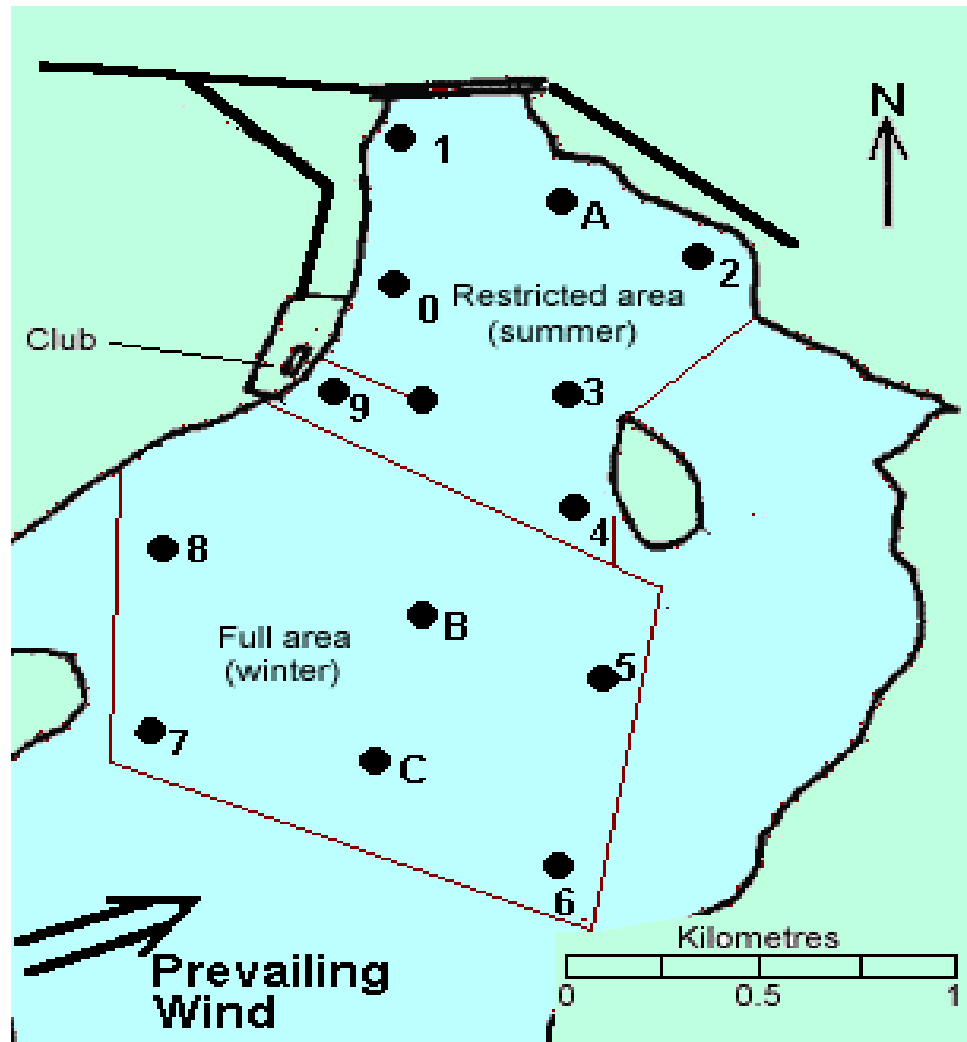
# W or M Course for Windsurfers



# Setting a Course

- ◆ Select a course that is suitable for
  - ◆ the PREDICTED wind strength and direction
  - ◆ the tide
- ◆ Seek advice if necessary
- ◆ Note start and finish line positions
- ◆ Mark X can be used anywhere
- ◆ Don't set a course that crosses the shallows
- ◆ Check that marks shown on recommended course actually are *in situ*
- ◆ Prepare course display, double-check that rounding sides of marks are correctly displayed
  - ◆ NO LOOPING OF MARKS!
- ◆ Confirm choice with Monthly Race Manager or get someone else to check

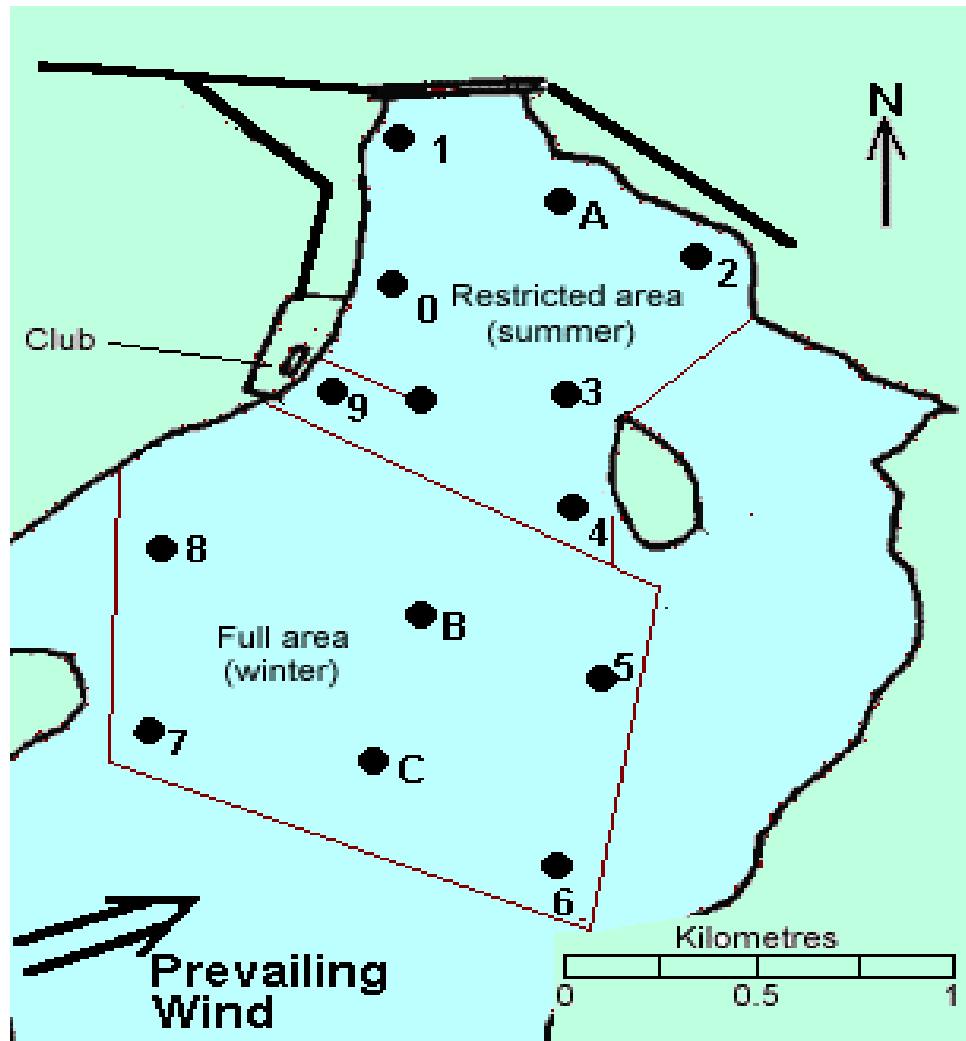
# Courses



## *Group discussion*

- *What are the features of a 'good' course?*
- *Can you achieve this on the water at CVLSC?*
- *Does club have a set of standard course configurations?*
- *Should we have windward / leeward courses?*
- *Set a course for the prevailing wind on previous slide*

# Course Options



1. Start at 5 7p Cp Bs 5S  
finish at 7
2. Start at 5 7p Cp 3p G 9p  
4s 8p 5s
3. Summer area Start at 2  
0p 3s G 9p 4p 2p
4. Start 4 8p Cp 4p finish at  
8
5. Start at 5 7p 5p finish at  
7
6. Pursuit Race Start Club  
9p 4s 8p 5s 7s 2p 0p 3s



# Courses for Handicap Fleet

- ◆ Windward / Leeward occasionally
- ◆ Course length should facilitate use of average lap times. Try and finish fleet as close together as possible
- ◆ Angles of legs should vary to suit fast, slow and asymmetric boats
- ◆ Vary courses during the day

# Decision Time!

- ◆ A Race Officer must use his/her judgement to
  - ◆ **decide length of start line**
    - ◆ how many last minute starters?
  - ◆ **how much bias is necessary?**
    - ◆ how shifty is the wind?
    - ◆ any current to be considered?
  - ◆ **postpone the start**
    - ◆ organisation not ready (race team, rescue)
    - ◆ wind - too little, too much
  - ◆ **start the race**

# Postponement Signals

- ◆ These can be used for ANY REASON WHATSOEVER!
- ◆ Use them as the panic button - a cry for help
- ◆ Reasons can include
  - ◆ buoy drifting
  - ◆ major wind shift leading to heavily biased line
  - ◆ mistiming between signals
  - ◆ misfiring of sound signals
  - ◆ broken halyards
  - ◆ Are all the competitors ready ( Enjoyment vs strict adherence to start times)
  - ◆ etc. etc.

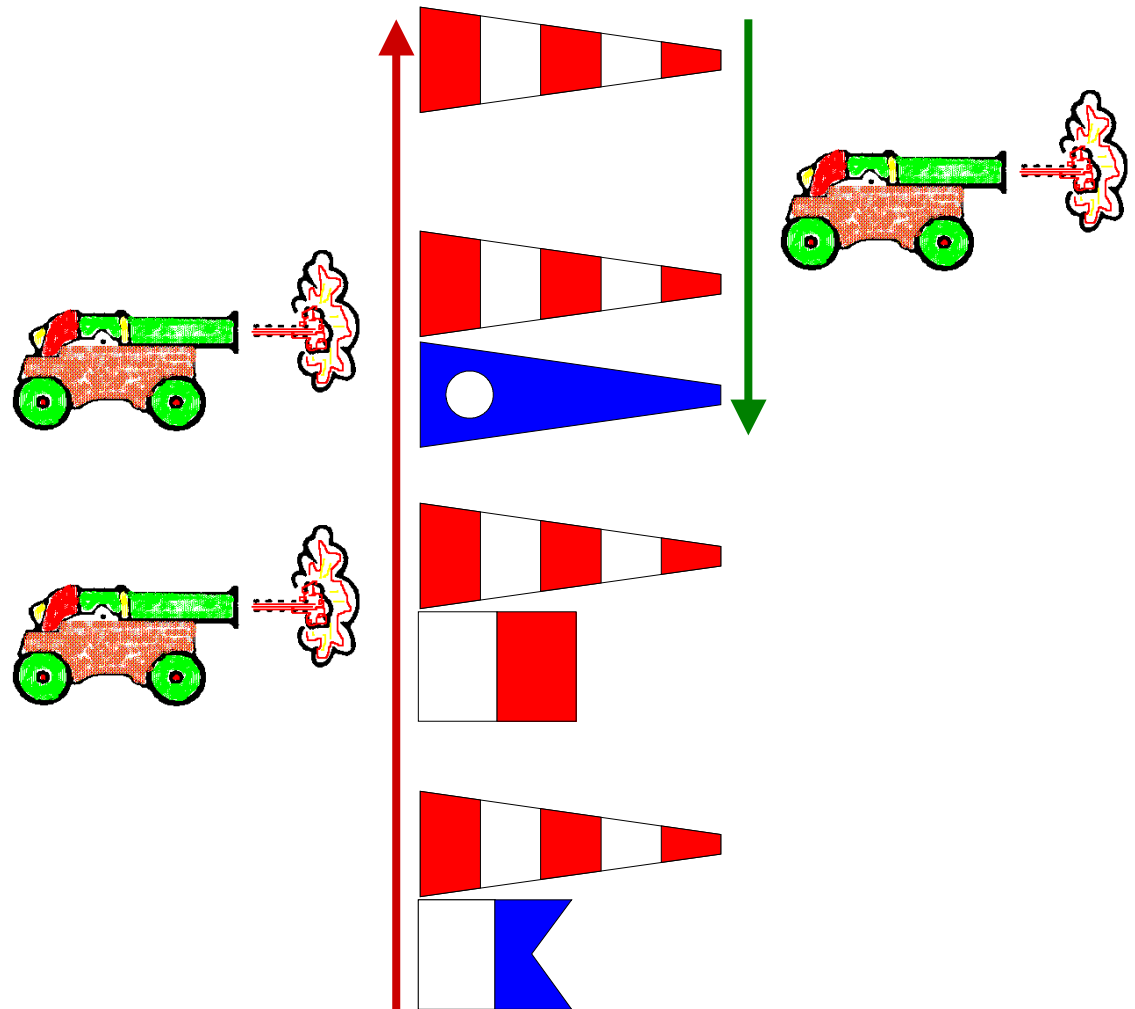
# There are FOUR Postponement signals

• 'AP'

• 'AP over a numeral'

• 'AP over H'

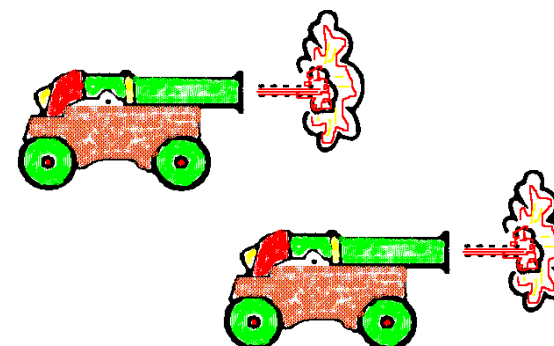
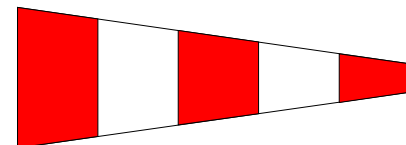
• 'AP over A'



# The Postponement Signal

## AP

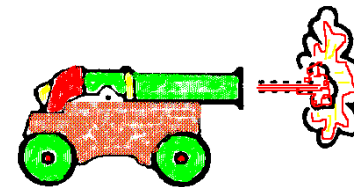
- All races not started are postponed
- Can only be used BEFORE the start



# Remove the Postponement Signal

## AP

- Keep to multiples of original time sequence if possible when removing
- One gun to remove flag
- Warning Signal made one minute after this signal is removed



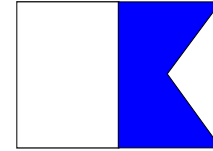
# Before the Warning Signal

- The Race Officer must designate the course by the race hut or on the committee boat if used
- The Race Officer may remove and substitute a new course before the warning signal
- CVLSC Sis state that Flag C may be displayed if the course is changed
- Note CVLSC still uses 6-3-1 go start routine

# Warning Signal

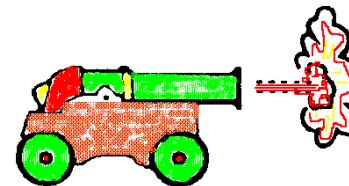
## When?

- at the advertised time



## Method

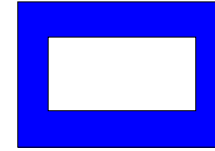
- class flag displayed
- one sound signal



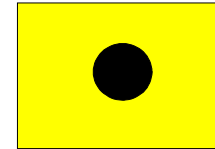


# There are four Preparatory signals

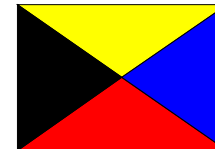
💧 'P' - no penalty-only use at  
Open Meetings at CVLSC



💧 'I' - rule 30.1 applies  
and standard in CVLSC  
SIs



💧 'Z' - rule 30.2 applies



💧 'Black' - rule 30.3 applies

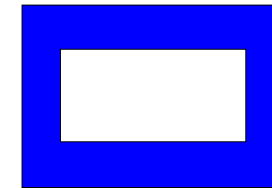
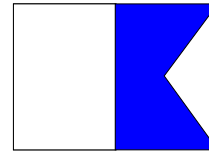


# Before the Preparatory Signal

- The Race Officer may shift a starting mark
  - This allows the Race Officer to 'fine tune' the start line.
  - This is best done by watching the fleet as they 'look' at the start line. Watch their angle of approach to the start line.
  - Try to get a line where the angle of approach on Port and the angle of approach on Starboard are the same.

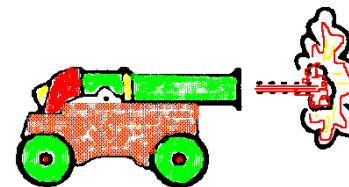
# Preparatory Signal

- 3 minute after the Warning signal

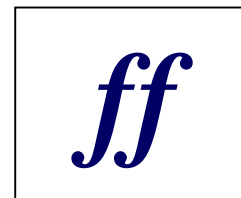


- Fleet now under racing rules

- Boats sailing in the vicinity of the Starting Line rank as competing boats



- Display warning flag for start 2

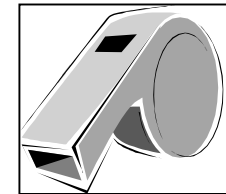
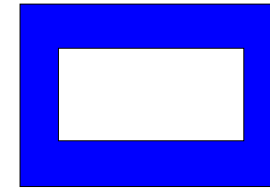
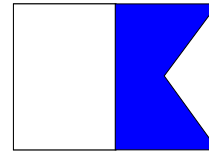


# Before the Start

- 💧 The Race Officer may
  - 💧 postpone, to designate a new course before or with the new warning signal, or for any other reason - **AP**
  - 💧 postpone for a set period of time - **AP over a numeral**
  - 💧 postpone and send the fleet ashore - **AP over H**
  - 💧 postpone to a later day - **AP over A**

# The One Minute signal

- One minute before the start blow the whistle to designate the round the ends rule as per the sailing instructions
- Record any boats over the line in this 1 minute period. **NB** Laser radials start 1 minute before Standard Laser fleet.

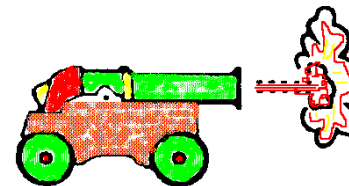


# The One Minute signal

- ☉ Whichever flag has been used as the Preparatory signal is removed ONE minute BEFORE the start.



- ☉ Rule 30 applies if the appropriate flag has been used.

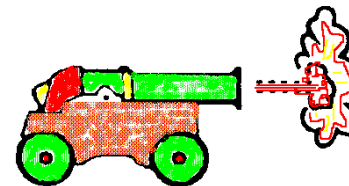
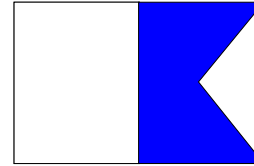


# The One Minute signal

- ◆ If a penalty flag has been used as the Preparatory signal, then it is important to record for;
  - ◆ the 'I' flag, any boats that return 'round the ends'
  - ◆ the 'Z' flag, any boats which are in, or enter the triangle formed by the start line and the first mark. These boats score a 20% penalty
  - ◆ the 'Black' flag, any boats which are in, or enter the triangle formed by the start line and the first mark.  
These boats are disqualified and their number is posted on the Committee Boat when there is a General Recall.

# Start

- The Class flag is removed at the start.
- Raise warning flag for start 3



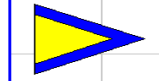


<b>Starting sequence for racing on Wednesday Evenings</b>						
TIME	FLAGS			SOUND	SIGNAL	NOTES
18:54					A Handicap flag up	
18:57					Blue Peter up. Laser flag up	Use postponement flag if wind changes direction and course needs changing
18:59					One blow on whistle	Watch out for "A Handicap" boats over the line
19:00					A Handicap flag down. B Handicap flag up. <b>Start timer.</b>	<b>A Handicap start.</b> Hold A Handicap flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
19:02					One blow on whistle	Laser Radial start. Watch out for Lasers over the line
19:03					Laser flag down	<b>Laser start.</b> Hold Laser flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
19:05					One blow on whistle	Watch out for "B Handicap" boats over the line
19:06					B Handicap flag down	<b>B handicap start.</b> Hold B Handicap flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary

Postponement

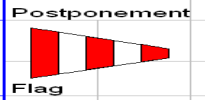


General Recall



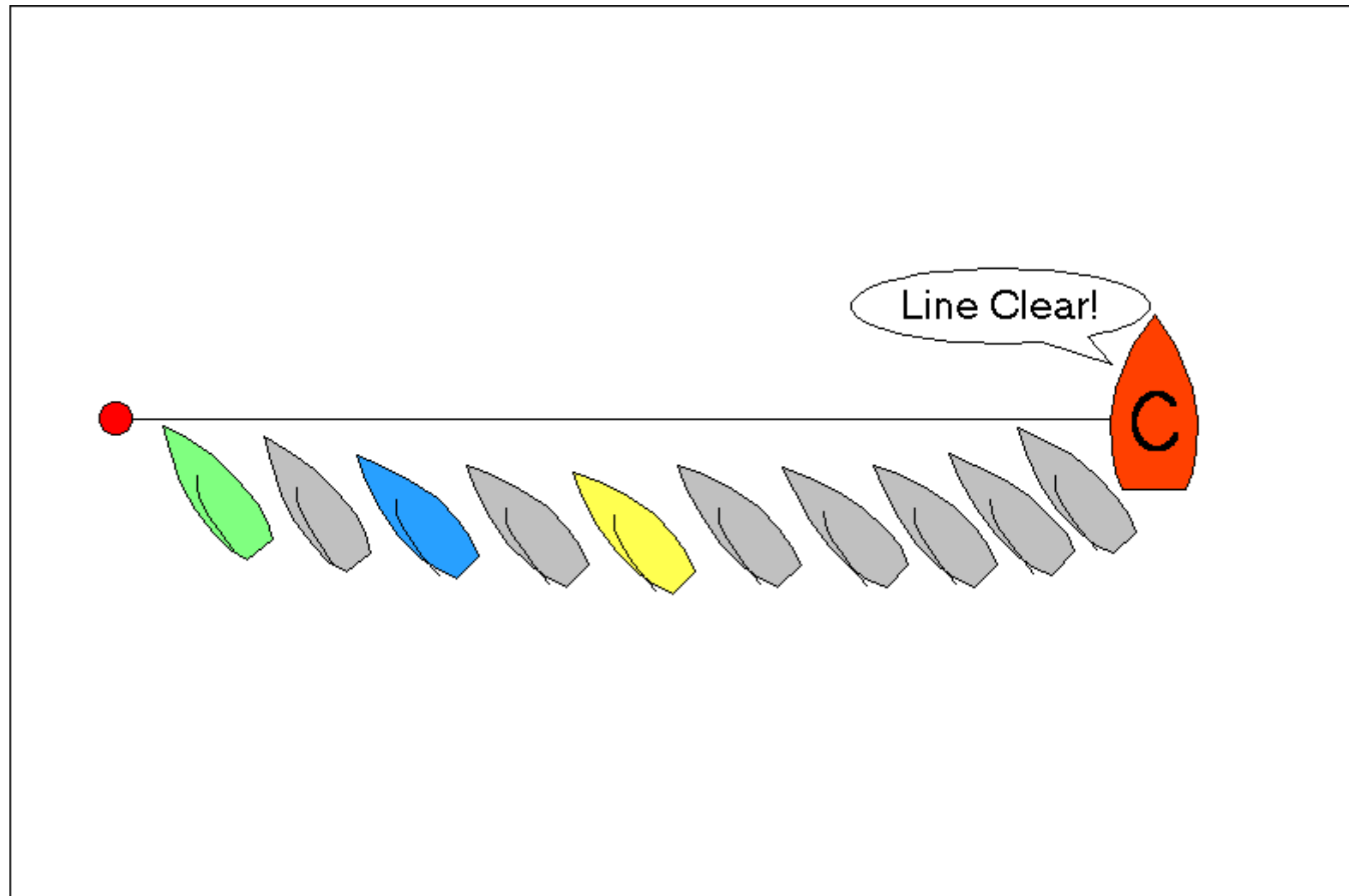
Flag  
Any fleet with a general recall goes to the end of the sequence

Starting sequence for racing on Sundays						
TIME	FLAGS			SOUND	SIGNAL	NOTES
10:54 or 13:24					Handicap flag up	
10:57 or 13:27					Blue peter up Flying Fifteen flag up	Use postponement flag if wind changes direction and course needs changing
10:59 or 13:29					One blow on whistle	Watch out for "Handicap" boats over the line
11:00 or 13:30					Handicap flag down. Laser flag up. <b>Start timer.</b>	<b>Handicap fleet start.</b> Hold Handicap flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
11:02 or 13:32					One blow on whistle	Watch out for Flying Fifteens over the line
11:03 or 13:33					Flying Fifteen flag down Solo flag up	<b>Flying Fifteen start.</b> Hold Flying Fifteen flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
11:05 or 13:35					One blow on whistle	<b>Laser Radial start.</b> Watch out for Lasers over the line
11:06 or 13:36					Laser flag down Topper flag up	<b>Laser start.</b> Hold Laser flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
11:08 or 13:38					One blow on whistle	Watch out for Solos over the line
11:09 or 13:39					Solo flag down	<b>Solo start.</b> Hold Solo flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
11:11 or 13:41					One blow on whistle	Watch out for Toppers over the line
11:12 or 13:42					Topper flag down and Blue Peter down	<b>Topper start.</b> Hold Topper flag at dip if boats are over the line ( 1 extra hoot) or fly general recall flag ( 2 extra hoots) if necessary
Apply same timing intervals for other races						

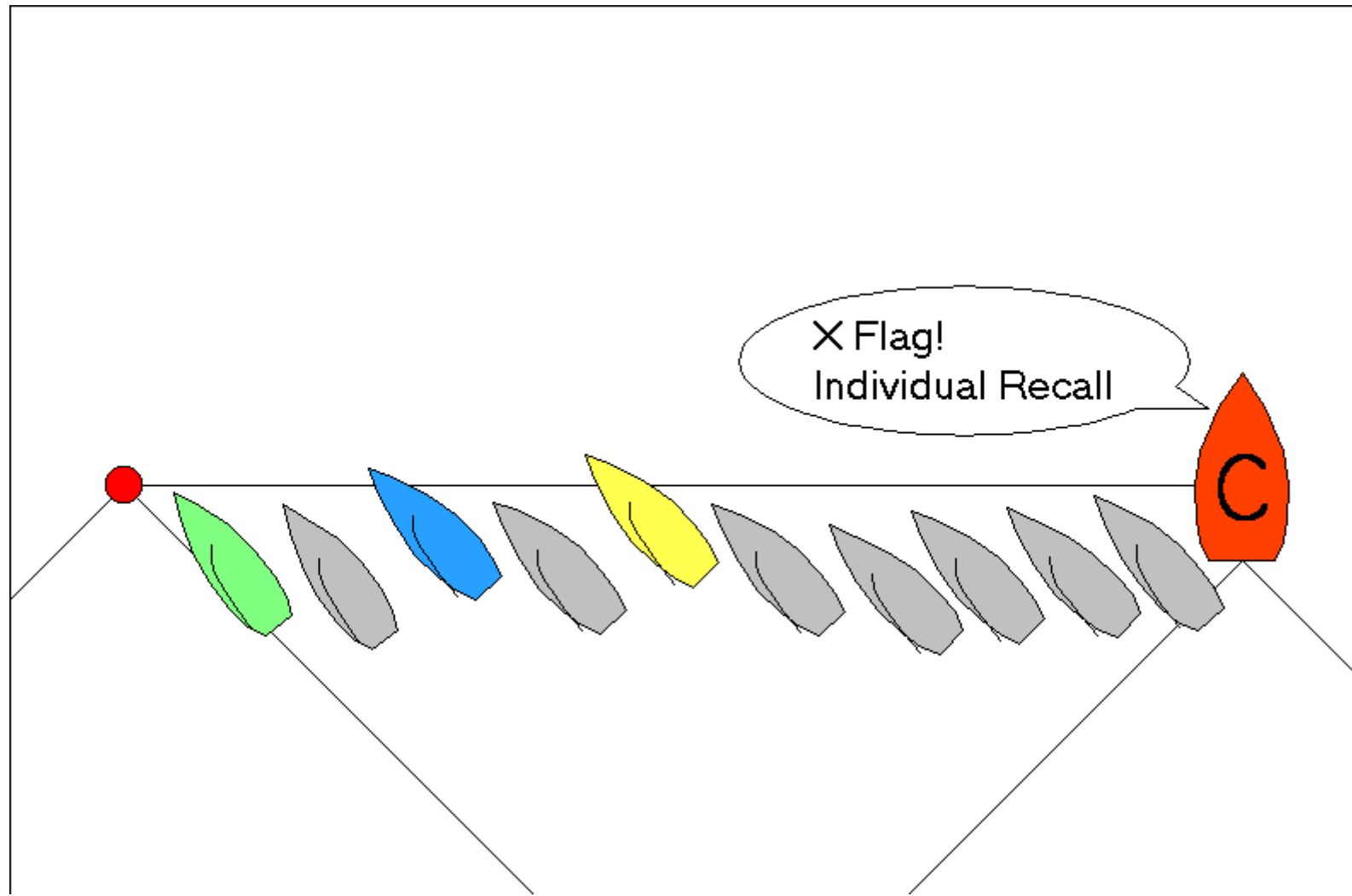


Any fleet with a  
general recall goes  
to the end of the  
sequence

# Clean start

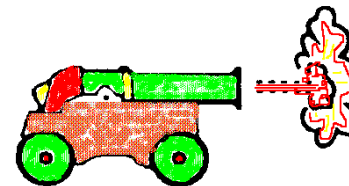
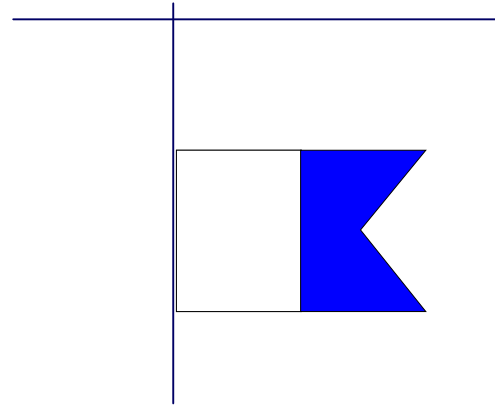


# Identifiable Boat(s) On Course Side of the line

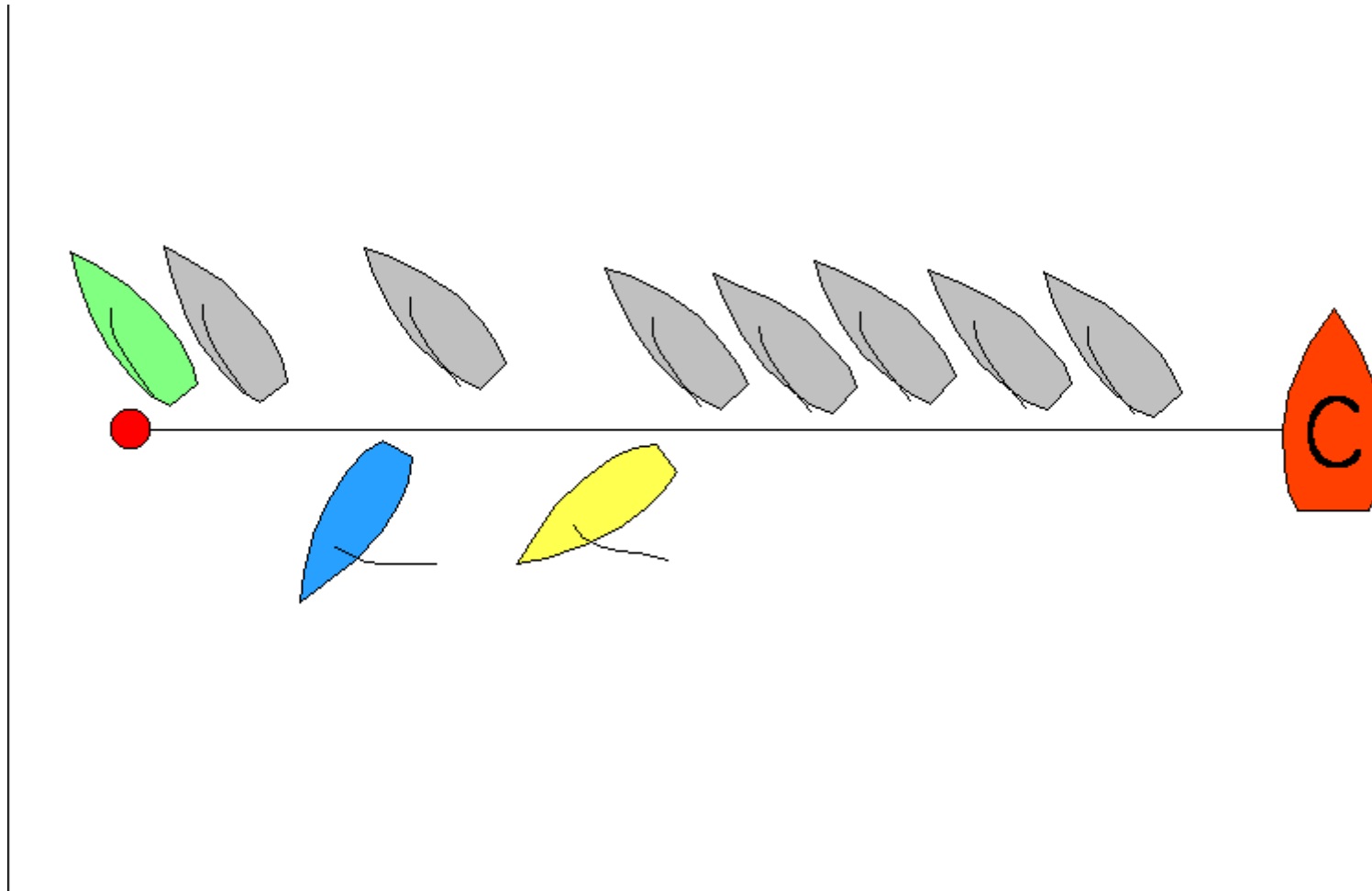


# Identifiable Boat(s) On Course Side of the line

- Class flag held at half mast
- One further gun
- record OCS on race the sheet
- watch the boat(s) to see if they return



# Identifiable Boat(s) On Course Side of the line – Incorrect Re-Starting due to I flag start



# Identifiable Boat(s) On Course Side of the line - Re-Starting

◆ When all have returned behind the start line

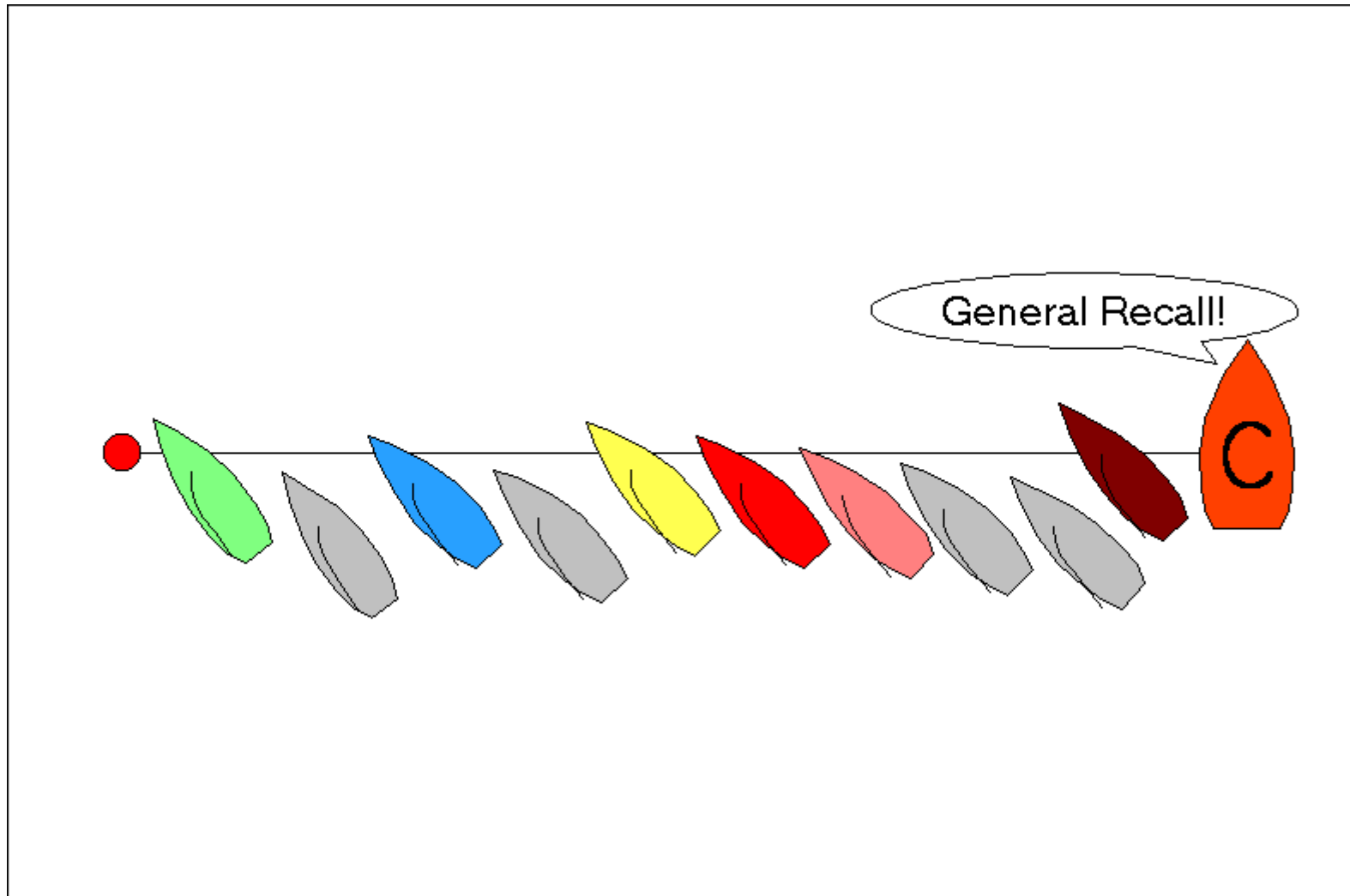
◆ Drop class warning flag

◆ delete OCS

◆ If some do not return, keep class flag dipped until 1 minute before next start or for 4 minutes whichever is earlier

No sound signal required!

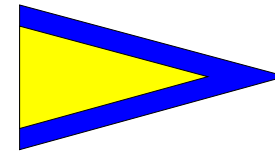
# General Recall



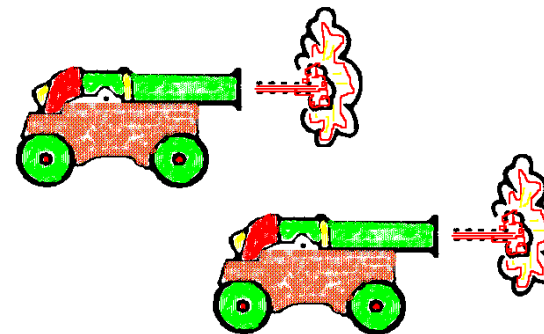


# General Recall

- ◆ To be used
  - ◆ when there are several unidentified OCSs or
  - ◆ if there is an error in procedure



- ◆ Method
  - ◆ display 1st Substitute
  - ◆ A further two guns
  - ◆ That fleet goes to back of sequence.

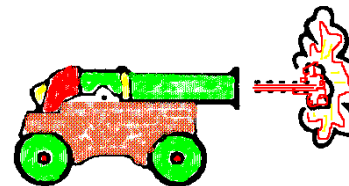


# Remove General Recall

- ◆ To be removed
  - ◆ when the race committee are ready to re-start the race
  - ◆ one minute before the next warning signal

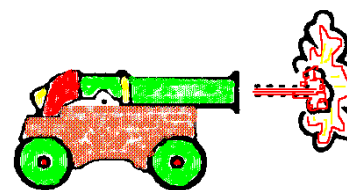
- ◆ Method

- ◆ remove 1st Substitute
- ◆ one gun or
- ◆ Whistle for “one minute rule” for the next start in the sequence



# Re-Start after General Recall: Stage Two

- Warning flag for fleet under general recall is raised 3 minutes before start of last fleet in sequence ( usually the Toppers or “B” Handicap fleet



- Start fleet 3 minutes after Toppers.

## *Group discussion*

- ◆ *After a General Recall CVLSC sends the offending fleet to the 'back of the queue.'*
- ◆ *What are the advantages and disadvantages of this system?*

# After the start race control

- ◆ To remain in control of the race, the Race Officer must, at regular intervals, check:
  - ◆ Safety
    - ◆ the weather conditions (that the crews can handle stronger winds)
    - ◆ that safety craft are still operational
    - ◆ that safety craft know of vessels which appear to be in trouble
    - ◆ that priority is being given to people and not boats

# After the start race control

- ◆ To remain in control of the race, the Race Officer must, at regular intervals, check:
  - ◆ Time
    - ◆ by timing boats on various legs of the course
    - ◆ calculating the approximate finishing time for the first yacht. Each race should be about one hour in length ( a bit shorter in very windy conditions or a bit longer in a perfect sunny force 3-4
    - ◆ Don,t forget that average lap time can be used for the Handicap fleet
    - ◆ comparing this time with the time limit, and preparing to shorten course if necessary

# After the start race control

- ◆ To remain in control of the race, the Race Officer must, at regular intervals, check:
  - ◆ Recording of Yachts
    - ◆ ensure that recorders have positions of each yacht at end of each round
    - ◆ keep track of leaders of each fleet
    - ◆ keep track of 'tail-end charlies' of each fleet relative to leaders

# Average Lap Times For Handicap Fleet

- ◆ Main principal is to finish all boats within the shortest time possible. This is particularly important if the wind is dying or increasing.
- ◆ This may mean finishing the slower boats before the faster boats
- ◆ Average lap times can only be used when a whole number of complete laps have been sailed ( ie when the start and finish are in the same place)



# Shorten Course or Abandon

- ◆ You may Abandon a race for any of the following:
  - ◆ foul weather
  - ◆ insufficient wind, making it unlikely that any boat will finish within the time limit
  - ◆ a mark missing or out of place
  - ◆ any other reason affecting the safety or fairness of the competition
  
- ◆ You may Shorten the course for all the above plus:
  - ◆ to allow another scheduled race to be sailed

# Shorten Course Signal means

- ◆ **displayed at the finishing line**

- ◆ finish the race either:
  - ◆ at the finishing line at the end of the round still to be completed by the leading yacht or
  - ◆ as prescribed in the Sailing Instructions

- ◆ **displayed at a rounding mark**

- ◆ finish between the rounding mark and the staff displaying the 'S' flag

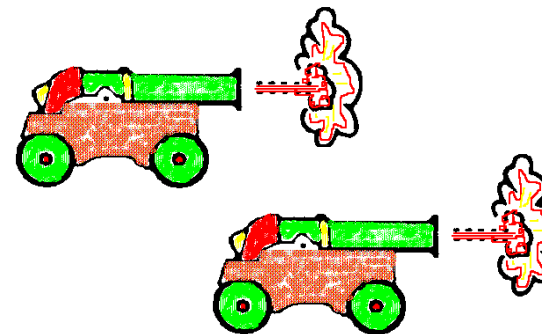
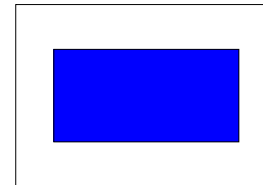
- ◆ **in multi-class, display over class flag(s) if not shortening all classes**

# Shorten Course : the method

- ◆ At Club Race Officer level, the most important thing is knowing when to shorten course
  - ◆ The position of the leading boat must be known
  - ◆ If the race is a close one, with the leader covering the second boat, it is essential that the boats all see and hear the shorten course signal, as this may affect their tactical sailing to the finishing line
  - ◆ In club racing the signal is normally flown when the leader rounds the penultimate mark before the shortened course finishing line

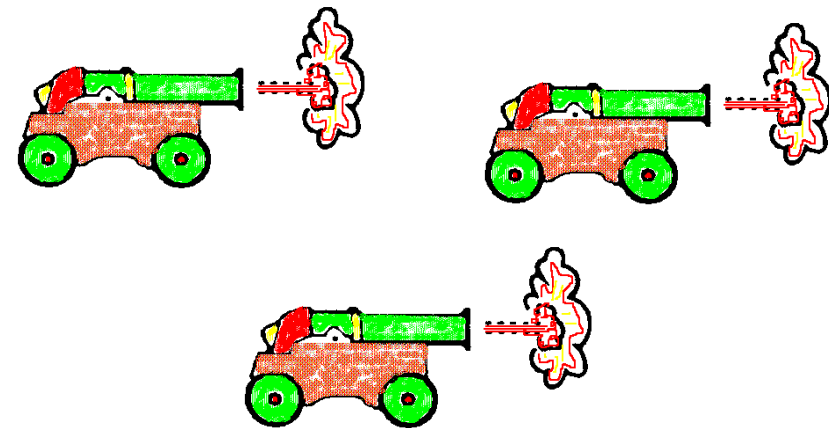
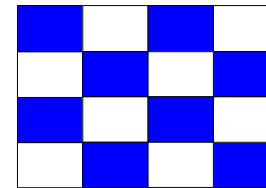
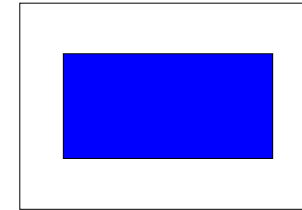
# Shorten Course : the signal

- ◆ When the leader rounds the last mark before the finishing line (i.e. is just on the last leg)
  - ◆ display flag S with class flag if finishing different fleets on different laps
  - ◆ Must use class flag as well if fleets are sailing different courses
  - ◆ two guns



# Shorten Course

- The CVLSC sailing instructions allow the race officer to terminate a race with results being the race order at the end of the last completed lap
- Only use if lap times and positions have been taken.
- Only use if up to the last lap represented a fair race
- Problems for competitors tactics

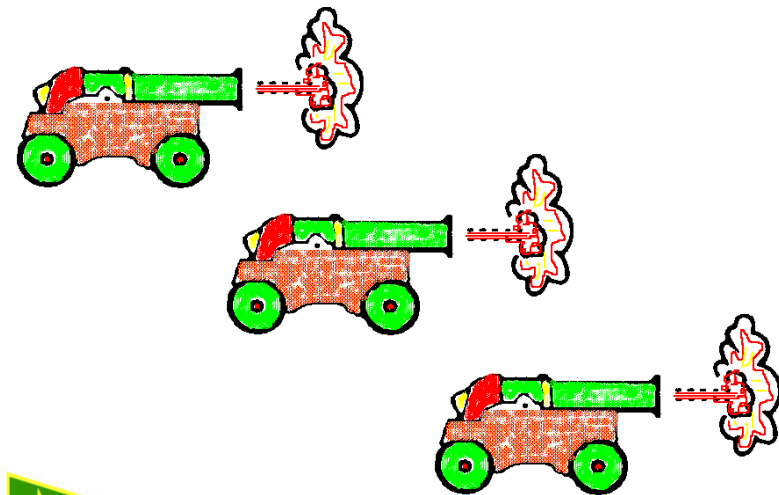
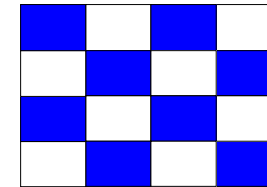


# Abandonment

- ◆ The race that has started is Abandoned, return to the starting area.

- ◆ 'N' displayed alone CANNOT be used BEFORE the start

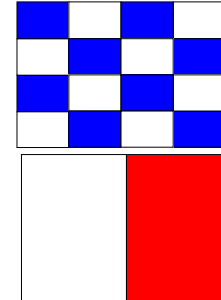
- ◆ 'N over H' and 'N over A' can be used BEFORE and AFTER the start



# Abandonment

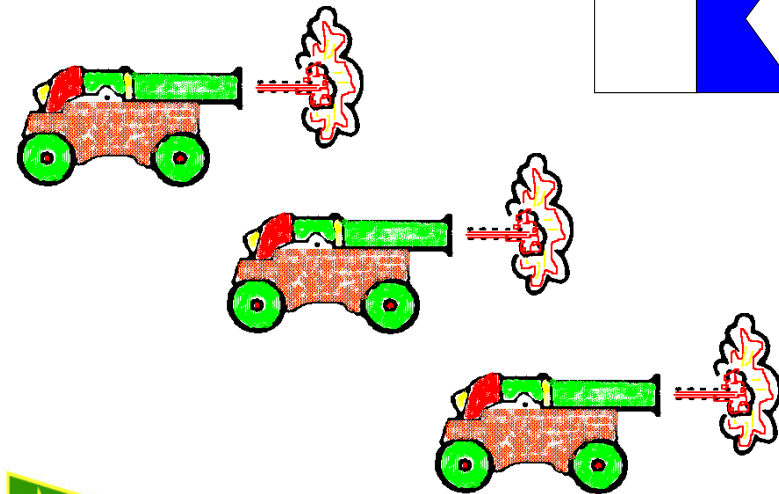
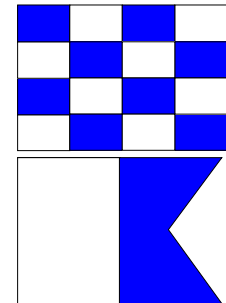
## 🔹 N over H

- 🔹 "further signals will be made ashore"
- 🔹 i.e. go back to the beach/harbour



## 🔹 N over A

- 🔹 "no more racing today"



# Module 4

## The Finish, post race tasks and evaluation



# Finishing the Race

- ◆ The Race Officer has to
  - ◆ **set a finishing line**
    - ◆ (in most clubs this is frequently the same as the starting line)
  - ◆ **has the race team set up for the finish**
    - ◆ Gunner with sound signals
    - ◆ Timekeeper ready to record finishing times
    - ◆ Recorder ready to record sail numbers and times
  - ◆ **if operating from a Committee Boat**
    - ◆ display a blue flag to show that CB is on station
    - ◆ Orange flag to denote line

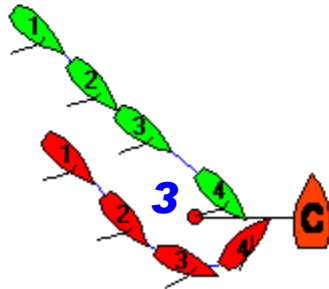
# Finishing

- Yachts must cross the finishing line in the direction of the course from the last mark. You may need to move committee boat if starting and finishing at the same mark.

- COURSE: 1 - 2 - 3 to PORT**

- RED wrong**

- GREEN correct** 2



# FINALLY -

- ◆ Tidy up
- ◆ Give out and receive protest forms, noting relevant times
- ◆ Present the results as quickly as possible
- ◆ Report any defects in the equipment to the Sailing Sec, Bosun or PRO
- ◆ Ensure that all equipment is securely locked away
- ◆ **GO TO THE BAR AND RECEIVE PRAISE FOR A GOOD JOB WELL DONE!!!**

# Evaluation

- 💧 Always evaluate your performance
- 💧 Talk to the sailors in the bar after the race about the course you set
- 💧 Always seek advice when necessary
- 💧 Talk to the more experienced Race Officers to see where you can improve

# The End

