



Felixstowe Ferry Sailing Club

Race Officers Manual

For

Club Sailing

Version 2.4



April 2004

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1 PREPARATIONS.

- Read the Race Officers Manual during the week prior to you being Officer of the Day (OOD)
- **Turn up early.** At 13:00hrs you will have a briefing with Duty Rescue Officer, YS Chief Instructor, and Race advisor to discuss courses to be used and any safety issues.
- Obtain a Weather Forecast for the Anglia region by phone on Marinecall 09068 500455, 09060 10455 by fax or www.meto.gov.uk/datafiles/inshore (Wash to North Foreland) and place on Race Notice Board.
- Hoist Club flag on Club entrance flagpole then Red Ensign from the crow's nest. (if not already done)
- Annotate Race Entry Forms with details of race and place on the table below the crow's nest, accompanied by the Entry Fee Money Box.(adults £1:00 juniors 50P) Ensure a pen or pencil is available for competitors to use.
- Consult Rescue Boat Officer to determine support facilities available.
- **Warning: If there is insufficient rescue cover racing is NOT to take place**
- **Competitors sailing Dinghies and Catamarans must wear buoyancy aids at all times.**
- Publish course with Entry Sheet when using clubhouse start. Hoist and fly flag 'R'  from the clubhouse. This signifies a River start.
- If the course is at sea, hoist and fly Flag 'C'  from the clubhouse. The course will be displayed on the course board on the committee boat at sea.
- Switch on radio and PA system; prepare klaxon and/or 12-volt siren (plug on side of desk). Test as necessary.

1.1 Starting Flags and Pennants

Bend on the following flags/pennants on the committee boat or flagpole outside the crow's-nest, but do not hoist until the start sequence commences



Squib



Dart



Asymmetric



YS & Dinghy



'X'



'P'



1st Sub

Follow starting procedure as in section 4

1.2 Starting at Sea

When the course is at sea the following are required on board Tishan:

- Flag-roll. (Check that it is complete)
- The sounding horn.
- Course board and letters, plus copy of Race Officers manual.
- Blackboard, chalk and rag.
- Blank race sheets, pen, pencil, scrap paper and clipboard.
- Accurate watch, which includes seconds. Preferably countdown digital type.
- Burgee for wind direction.
- Ensure the small mark with anchor and rope is in Tishan to lay if reaching finish line astern of Committee Boat is required.

1.3 Pre-departure checks on board Committee boat

- Ensure items listed in section 1.2 are aboard.
- Follow the instructions kept on board for pre – use maintenance. Ensure log is completed.
- Switch on the master switch under the thwart and call Rescue Officer for a radio check. If you are unsure how to operate the radio, contact any rescue officer for instructions.
- Advise the Rescue Officer of your departure. If possible, leave someone in or near the Crows Nest as a contact and/or to finish races if Club line finish.
- Members of the Youth Section are not permitted to leave the shore until authorised by the Rescue officer.

Note: Tishan is not permitted to come alongside or to be moored against the jetty at any time

2.0 COURSE SETTING.

2.01 Points to consider before setting the course: -


- Weather conditions (including the immediate forecast).
- Support Boat facilities available.(check with Rescue Officer)
- Experience of helms participating.
- Refer to Appendix A for location of Racing Marks
- Tides (direction and strength).
- Classes of boats racing.

2.02 Club Line Starts: -

- Consider the wind and tide conditions to determine which of the three Start Lines located on the opposite bank of the river to use.
- When using sea courses, the new 'Mid Knoll' green buoy must be left to Port on the way out and Starboard on the way in. Indicate on the course whether the 'Mid and East Knoll' buoys are part of the course and which side to pass them.

2.03 Sea Starts: -

Carefully consider the following points. Getting it wrong won't improve your popularity!

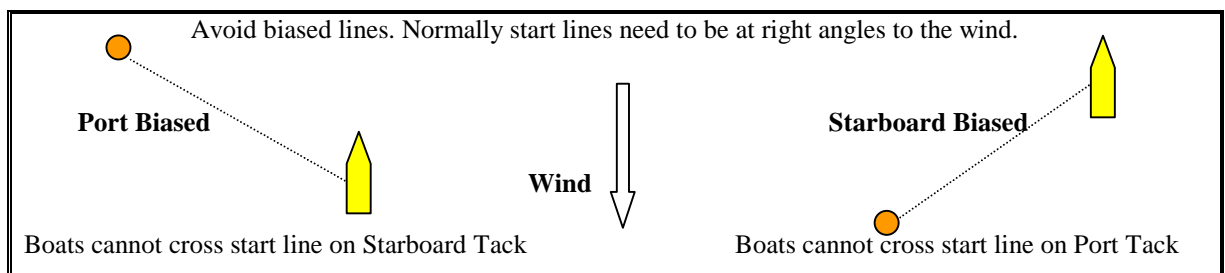
- The start line should be located 1/3 the distance between the leeward and windward marks. (see appendix A)
- Determine which of the fixed racing marks to use by the wind direction. The first mark of the course should be directly upwind of the leeward mark and start line.
 - If the wind does not provide a suitable 'beat' to the windward mark consider either laying an inflatable/round buoy directly upwind of the leeward mark. Position the start line accordingly.
- The Committee boat should be located on the Starboard end of the Start line.
- Ideally, the length of the start line should be approximately one and a half boat lengths for each boat competing.
- The start line should be at right angles to the wind direction. Avoid biased start lines. (See section 2.4 below)
- Be aware of the effects the tide can have on the first leg of the race. If the tide is running across the course it may well spoil the true beat. Make allowances if necessary.
- Decide on the most suitable course to use. (See Appendix B)
- When the course has been decided, drop anchor. To indicate the committee boat in on station hoist the Orange flag . Bend on flags as in section 1.1.
- **Note** In strong winds or tides the anchor may drag. It will then be necessary to use the anchor on the inflatable as a second anchor. Untie the inflatable anchor rope and re-attach it to the ring under the bow. (You will lose the anchor otherwise!)
- Display the course on the Course Board and place in a prominent position before the start sequence.
- Follow starting procedure as in section 4
- **Important: Record the start time for each race and the finishing time for each competitor.**

2.04 Biased Start Lines

Biased start lines prevent contestants from starting on an equal basis. Boats usually congregate at one end of the start line in order to gain the most favourable start. In a heavily biased starboard line boats congregate around the committee increasing the risk of collision. In a badly laid start line boats cannot even cross the line on the tack they are sailing. They are then forced to tack to cross.


Lay the start line carefully following these recommendations:

- With no tidal considerations the start line should be at **right angles** to the wind. However a slight Port bias is desirable. This prevents boats bunching at the committee boat end.
- With the tide pushing boats onto the line introduce a starboard bias.
- With the tide pushing boats against the line introduce a port bias.
- In light winds and spring tides a very strong bias needs to be applied to allow the boats to cross at all.





2.05 Postponing the Race

The Race Officer may postpone the start of the race at any time for any reason. Unsuitable weather conditions or wind shifts are the most common reasons for postponing the start. If the race cannot be started on time for whatever reason the Race Officer must postpone the race.

Raise the Answering Pennant . At the same time two sound signals are to be made.




When the race officer is ready to start the race the AP is lowered and one sound signal is made. Exactly one minute after lowering the AP the 5-minute starting sequence begins.

2.06 Finishing at Sea (see appendix B)

- Hoist **Orange** and **Blue**   Flags to indicate Committee boat on station to finish races.
- The second race for all classes will start as soon as possible after the first race has finished.
- Where possible two races will be run when the committee boat is at sea.
- Sound hooter as boat crosses the finishing line, unless boat has retired, did not start, or is disqualified (see section 2.7)
- Record the **finishing time and position of all boats**

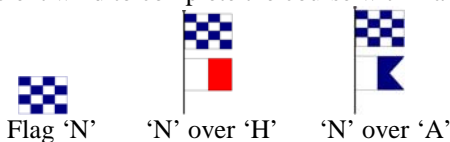
2.07 Shortening Course

If the conditions determine that boats are unlikely to complete the full course within the allotted time or when the weather conditions deteriorate, the shortened course procedure should be used.

- Hoist **Orange** and **Blue**   Flags to indicate Committee boat on station to finish races
- On a separate halyard hoist the shortened course flag 'S' .
- As the leading boats come within approximately 100 metres of the finish two sound signals are required to alert the leading boats that the race is being shortened.
- Boats should proceed round the course marks as normal from the direction of the previous mark. Finish the race as normal.
- If a specific class needs to be shortened only, hoist the 'S' flag over the class flag.

2.08 Abandoning the race

The Race Officer may abandon the race after the start if the weather conditions deteriorate, if there is insufficient wind to complete the course within a reasonable time limit or for any other reason.



Flag 'N' is used to abandon the race *after* it has started and where it is intended to re-start the race. It is accompanied by **three** sound signals. It is lowered 1 minute before the starting sequence and accompanied by one sound signal.

Flags 'N' over 'H' are used when the race is abandoned and competitors are required to go ashore to wait for further instructions. It is accompanied by **three** sound signals.

Flags 'N' over 'A' are used when the race is abandoned and no further racing is to take place that day. It is accompanied by **three** sound signals.

2.09 ABBREVIATIONS FOR SCORING RECORDS

DNC	Did not come to the starting area	DNF	Did not finish
DNS	Did not start	RET	Retired after <i>finishing</i>
DSQ	Disqualified		
OCS	On the course side of the starting line and failed to re-start properly		

2.10 Club line Finishes




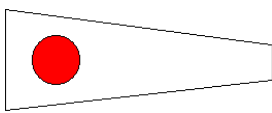
The club finish line is between the flag pole immediately in front of the crows nest and the pole on the opposite bank of the river displaying a yellow disc with a number '2'.

2.11 Inflatable Marks/Red Plastic round buoys: -








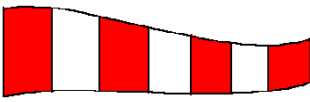

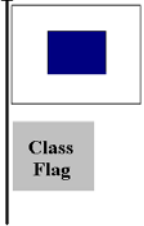

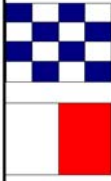

These may be set by the OOD when the race officer lays the optional dinghy handicap courses.

3.0 Class and Signal Flags in use at FFSC

Club Racing - Class flags:

			
Naval No. 9 Squib Class	Darts	Asymmetric Fleet	Numeral no. 1 YS & Dinghy Handicap

Club Racing - Signal flags:

				
Flag 'C' 'When flown from the crow's nest' Sea Start	Flag 'R' River Start	Flag 'P' Preparatory Flag + 1 sound signal	Flag 'X' Individual Recall + 2 nd sound signal	1 st Substitute General recall + 3 rd sound signal
				
'Orange Flag' Committee Boat on station to <u>Start</u> racing	'Orange and Blue' Committee Boat on station to <u>Finish</u> Racing	Answering Pennant Race postponed to be re-sailed shortly. Two sound signals when raised. Lowered 1 minute before race starting sequence + One sound signal		
				
Flag 'S' Shorten course As the first boat approaches within 100 metres of the finish line Hoist Flag 'S' plus two sound signals. To shortening specific classes: Hoist flag 'S' over the class flag.	Flag 'S' over class flag Shorten specific class	Flag 'N' Race Abandoned Three sound signals when raised See section 2.08 for explanation	'N' over 'H'	'N' over 'A'




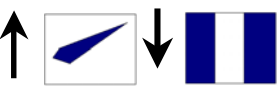
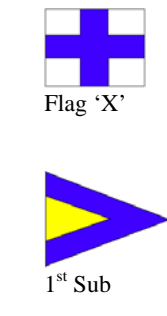


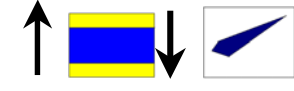






3.1 STARTING PROCEDURES. 2001 to 2004

As from 1st April 2001 **ALL** Club starts for class and handicap racing at FFSC will use the new RYA starting procedure as shown in Para 4.2 (i.e. 5, 4, 1, 0 minutes)

Start times. (Times are indicative only and may vary)

Club Series races: Saturday 14:30hrs.. Club Handicap and Trophy races: Sunday 11.00hrs

3.2 Saturday afternoon Series. Starting Procedure (Squib, Dart, Asymmetric and Dinghy Handicap Classes)

<p>14:25 hrs Sound Hooter once, hoist Squib class flag Naval 9</p>	
<p>14:26 hrs Sound Hooter once, hoist flag 'P'</p>	
<p>14:29 hrs Sound Hooter once, lower flag 'P'</p>	
<p>14:30 hrs Sound hooter once (Squib Start). Lower flag Naval 9. Raise Dart Warning Flag</p>	
<p>Premature starters IF ANY IDENTIFIABLE BOATS ARE OVER THE LINE: Sound hooter for the second time and hoist flag 'X' ASAP Where possible call out the offending sail numbers, Then call "ALL CLEAR" when all offending boats have correctly started. Lower flag 'X'. All offending boats must start correctly with 4 minutes. Disqualify any boats failing to do so. IF TOO MANY BOATS ARE OVER THE LINE AND CANNOT ALL BE IDENTIFIED: Sound Hooter for the third time and hoist '1st substitute' General Recall pennant. This Class now goes to the back of the starting sequence and now starts after the last fleet.</p>	 <p>Flag 'X'</p> <p>1st Sub</p>
<p>14:31 hrs Sound hooter once, hoist Preparatory flag 'P'</p>	
<p>14:34 hrs Sound hooter once. Lower Preparatory Flag 'P' If Flag 'X' has not previously been lowered do so now. Or lower the 1st Substitute pennant if raised at the start of this race.</p>	
<p>14:35 hrs Sound hooter once.(dinghy start) Lower 'Dart class flag' Hoist Dart fleet warning Flag. If any boats over the line, proceed as per 'Premature Starters' above.</p>	
<p>14:36 hrs Sound hooter once. Hoist Preparatory Flag 'P'</p>	
<p>14:39 hrs Sound hooter once. Lower Preparatory Flag 'P' If Flag 'X' has not previously been lowered do so now. Or lower the 1st Substitute pennant if raised at the start of this race.</p>	
<p>14:40 hrs Sound Hooter once. (Asymmetric start) Lower Asymmetric class flag. Raise Dinghy Handicap class Pennant If any boats over the line, proceed as per 'Premature Starters' above.</p>	
<p>14:41hrs Sound Hooter once. Hoist Preparatory Flag 'P'</p>	
<p>14:44 hrs Sound hooter once. Lower Preparatory Flag 'P' If Flag 'X' has not previously been lowered do so now.</p>	
<p>14:45 hrs Sound hooter once. Lower Dinghy Handicap class pennant. If any boats over the line, proceed as per 'Premature Starters' above.</p>	

4.0 CALCULATING RESULTS

- For fleet races finish positions stand.
- For Handicap Races results have to be calculated for each boat as follows using the formula:

$$\text{Corrected Time} = \text{Elapsed Time} \times \frac{1000}{\text{PN}}$$

Where: -Elapsed Time = Finish Time minus Start Time
 PN = Portsmouth Number

Method:

1. Calculate the elapsed Time
2. Convert Elapsed Time into Seconds.
3. Calculate the Corrected Time in seconds. Boat with lowest Corrected Time wins.

Example:

Squib PN = 1107

Start time: 10:30hrs

Finish time: 11:57:36hrs

Elapsed time: 87mins 36 seconds

(87 x 60 + 36) = 5256 seconds

Corrected Time = $5256 \times \frac{1000}{1107}$

= 4748 seconds

Lowest time wins. i.e. Squib

Dart 18 PN = **805**

Start time: 10:30hrs

Finish Time: 11.34.31hrs

Elapsed Time: 64mins 31 seconds

(64 x 60 + 31) = 3841 seconds

Corrected Time = $3841 \times \frac{1000}{805}$

= 4771 seconds

4.1 COMMON PORTSMOUTH NUMBERS USED at FFSC

(Locally adjusted PN's)

Dart 15	916	Hobie Tiger (F18)	689	Mirror	1386
Dart 18	805	Hurricane 5.9	691	OK	1111
Dart 18 Single Handed	812	Lark	1073	RS 200	1059
Enterprise	1116	Laser (std.)	1078	RS 400	952
Europe	1139	Laser Radial	1101	Shearwater	839
Fireball	986	Laser 2000	1092	Solo	1155
Firefly	1168	Laser 4000	906	Squib	1107
GP14	1127	Laser 5000	846	Wayfarer	1168
Hobie 16	802	Miracle	1178	505	902
Hobie 18	744	RS 800	820	Spitfire	708

Note: The complete handicap tables are listed in the RYA Yacht Racing Handbook. Kept in the Crows Nest.

5.0 PURSUIT RACES

The objective for pursuit races is that, if boats of different classes are sailed by crews of equal ability, they should all cross the finishing line together, having started at different times related to the Portsmouth Number of their boat. The race is for a fixed duration. The recommended Race Duration (RD) is 90 minutes. Usually at FFSC the finish time is 13:00hrs. Start times are calculated using PN's. Slowest boats with highest PN start first.

5.1 Calculating Pursuit Race Start times

- Calculate Race Duration for each class using the formula = 90mins x $\frac{\text{PN}}{1000}$
- Subtract race duration time for each class from the finishing time. i.e. 13:00hrs

Example:

Squib PN = 1107

Race Duration = $90 \times \frac{1107}{1000}$

= 99.63 minutes

(Correct to seconds by multiplying the decimal x 60)

(0.63 x 60) = 38 seconds

Dart 18 PN = 805

RD = $90 \times \frac{805}{1000}$

= 72.45 minutes

Squib Race Duration = 99mins 38 seconds

Start Time = 13:00 – 1 hr 39mins 38 secs

Squib start = 11: 20: 22 hrs

Dart RD = 72mins. 27secs.

Start time = 13 :00 - 1hr 12mins. 27secs.

Dart 18 Start time = 11: 47: 33 hrs

These times are to published on the entry form and on the race notice board.

Class warning flags are also to be published on the race notice board.

Note: At the race officer's discretion he may round the times up or down to the nearest minute.

5.2 Pursuit Race Starting Procedure

One minute before the designated start time of the slowest class it's warning flag will be hoisted accompanied one sound signal.

30 seconds before the designated start time of the slowest class the preparatory signal will be hoisted accompanied by a sound signal.

At the designated start time for the slowest class both flags will be lowered accompanied by one sound signal. All other classes will use the same procedure as the slowest class for starting.

To indicate individual recalls, flag 'P' will not be fully lowered but lowered half way for **ten** seconds accompanied by two sound signals.

It will be the sole responsibility of competitors to start correctly.

There may be no indication given that competitors have cleared the start line correctly, however. The Race Officer will try to inform competitors who have started **incorrectly**.


All competitors should note which class starts immediately ahead of them.

All signals will be made on time indicated, even if there are no relevant boats of that class on the water.

The race committee will endeavour to announce the next class at the 1 minute warning signal.

5.3 Pursuit Race Finishing Procedure

The latter part of the course will include a loop between marks in the river either side of the club finishing line, therefore boats will regularly be crossing through the finishing line.

*To end the race at 13.00hrs the Blue Flag  will be hoisted and **three** sound signals will be made. The finishing signal for the leading boat will end the race for all competitors.*

Positions of individual boats at the time they cross the finishing line will be their finishing order.

The winning boat will be the boat that crosses the finishing line first after the finishing signals.

Due to weather conditions the race officer, at his discretion, may lay a mark just ahead of the leading boat at 13:00hrs to finish the race.

Competitors should note the boat AHEAD and ASTERN of them at the finish of the race and DECLARE this on the race declaration if appropriate.

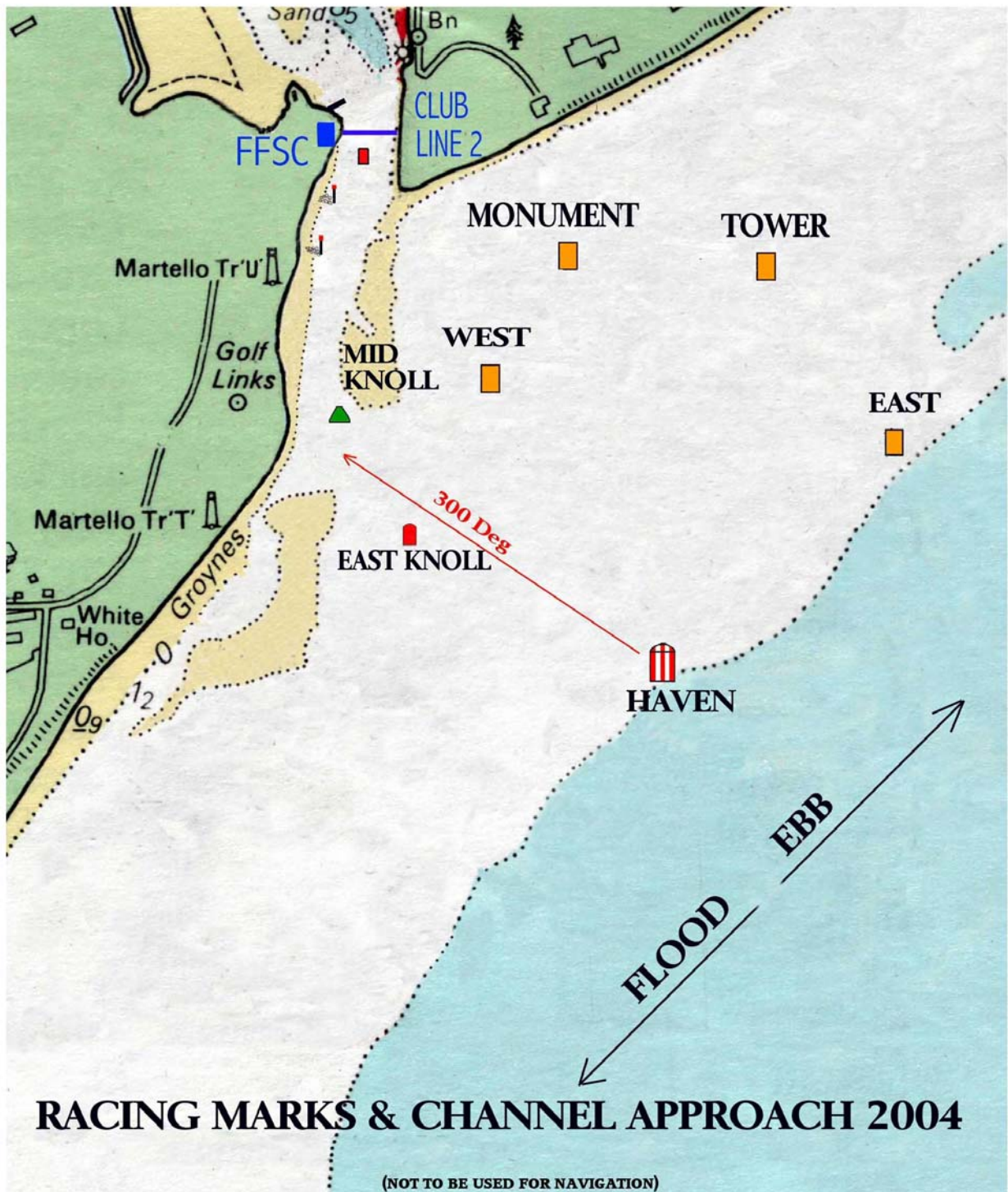
6.0 POST-RACE PROCEDURES

Confirm with Rescue Officer that all competitors have completed the course and have returned safely

- Ensure that all entry fees have been paid and in the entry box provided. Box to be left in the Crows Nest.
- Make a copy of the results and display on the "Race Results" board between ladies and gents toilets. The original result sheets to be kept in the Crows Nest. Update the relevant class series sheets located on the first floor notice board.
- Ensure all equipment used has been returned to the relevant storage points. Switch off radio, tannoy system (PA) and hooter.
- Ensure the log on Tishan is completed. Reports any defects, water/oil requirements to rescue officer.
- Lower any flags flying from the crow's nest.
- Lower the Club Flag from the flagpole outside the main entrance and return to the crows nest at the end of the day.

Appendix A – Location of FFSC Racing Marks

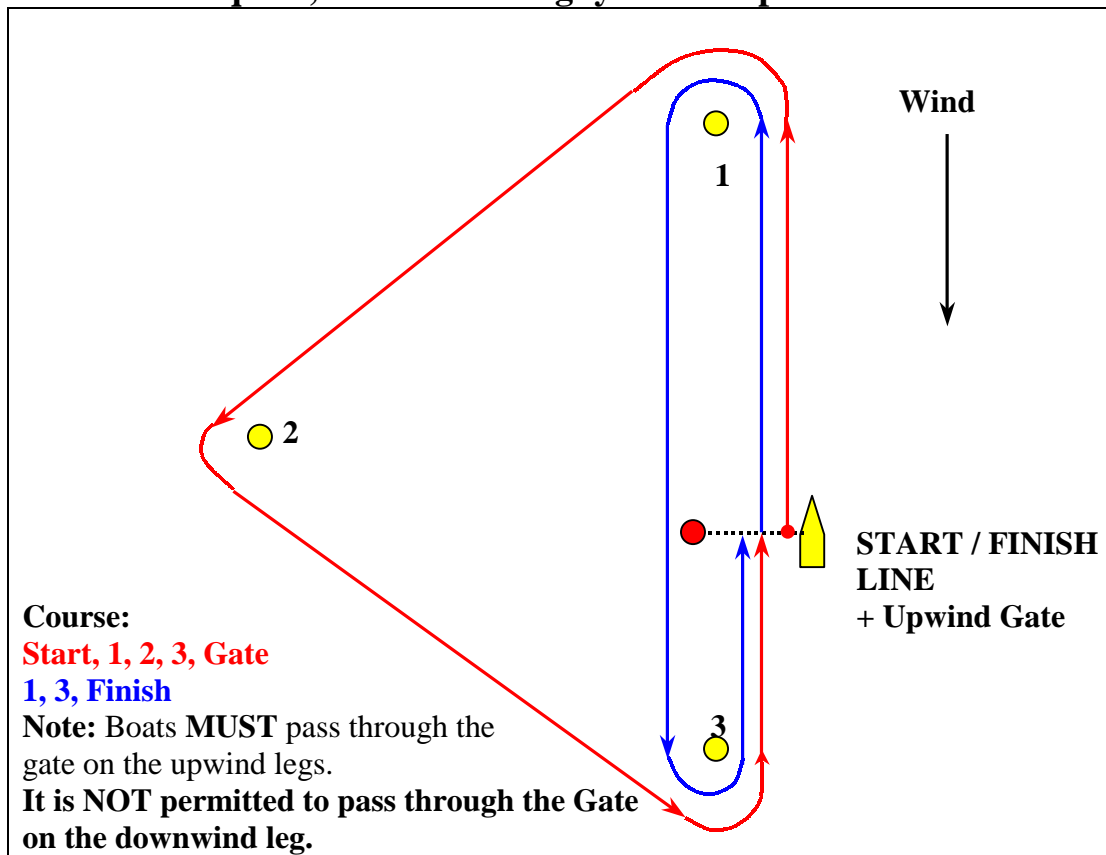
(Racing marks are in approximate positions only)



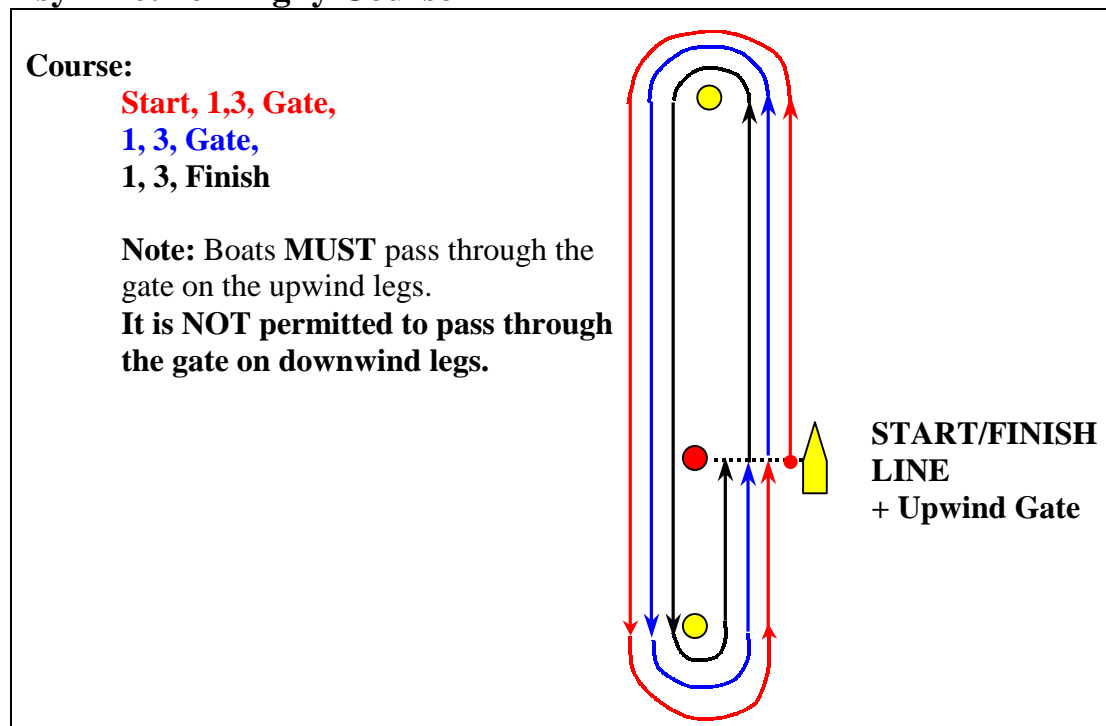
Appendix B FFSC racing courses

- FFSC yellow cans are used as the fixed racing marks.
Dependant on the wind direction 3 marks will be selected from:
East, West, North, Tower, Monument and Haven

Note: The Haven red/white channel marker buoy may also be used as a racing mark
Course for Squibs, Darts and Dinghy Handicap



Asymmetric Dinghy Course



Appendix C: - FFSC Course Board (Displayed on the Committee boat when racing at Sea)

Fleet starting order

14.30 Squibs

Numeral No.9



14.35 Darts

Dart class flag



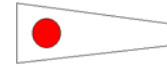
14.40 Asymmetric

Flag 'D'



14.45 Dinghy Handicap

Numeral no. 1



Club Racing Marks at Sea:

E= East

W= West

T= Tower

H= Haven

M= Monument

I= Inflatable/round plastic buoy

Course board example

(All fleets)



E = East

T= Tower

M= Monument