

ADVICE AND RECOMMENDATIONS
FOR
RACE MANAGEMENT TEAMS

(Revised March 2007)

The following guidance is issued by way of assistance to Race Management Teams with a view to making their tasks more interesting and rewarding whilst, at the same time, improving the standard of race management at the Arun Yacht Club. Whilst some sections of this guidance are aimed primarily at the Race Officer and his/her Assistants, others relate to safety boat crews and, collectively, is relevant to all who form part of an integral Team needed to ensure the safe and efficient running of the Club's Racing Programme.

These notes are intended to be relatively comprehensive and must, therefore, inevitably cover ground that will be familiar to those of you who are already experienced Team members. However, hopefully everyone will find something of interest, and you are therefore urged to read them thoroughly. If, having done so, you are still unclear over any aspect, please do not hesitate to raise queries with the Hon. Racing Secretary or anyone else that you feel may be able to help.

These guidance notes are divided into 13 sections as follows:

1. The Objectives of the Race Officer and His/Her Team.
2. Preliminaries.
3. The Equipment You Will Need.
4. Radio Communications
5. Setting The Course.
6. Towing
7. Laying The Course.
8. Laying The Start Line.
9. The Start Procedure.
10. Laying The Finishing Line.
11. The Race.
12. Finishing Procedures.
13. Post Race Responsibilities.

1. The Objectives of The Race Officer and His/Her Team

- a). To ensure the safety of competitors at all times.
- b). To provide efficient race management to ensure fair competition for race participants.
- c). To provide encouragement for competitors.
- d). Through the foregoing, to assist the promotion and development of dinghy, keelboat and cruiser racing at the Arun Yacht Club.

These objectives can best be met by a good general understanding of the needs of the competitors and effective communication with them. For example, whilst every effort should be made to start races on time, a Race Officer will receive few thanks for doing so if the majority of the competitors are still being towed out of the river. However, competitors need to be equally aware of the need to leave adequate time to reach the start area and, if towing out of the river is likely to be necessary, the safety boats need to be available to offer tows some 40 minutes before the first race is scheduled to start. However, shipping movements and other factors can arise which will delay things and justifiably necessitate a short postponement.

2. Preliminaries

1. The Club is responsible for appointing the Race Management Teams and for sending out reminders. However, the nominated Team Leader (who may not necessarily act as the Race Officer) should ensure that he/she has adequate assistance available on the day and it is recommended that he/she should make direct contact with all members of the Team approximately one week in advance to check that they will not let him/her down on the day. Please remember that it is the responsibility of each individual to find a replacement if, for any reason, they are unable to do their duty on any specific date. Only as a last resort should they place the responsibility for that back onto the Racing Secretary, although that is better than simply failing to turn up! If the Team Leader will not be acting as Race Officer, another Team member should be nominated to that position in advance.
2. The Race Officer should arrive about 2 hours (for racing at sea) or 1½ (for racing in the river) before the scheduled time of the first start and all other personnel should arrive at least 1¼ hours before the first start.
3. Race Officer should, in advance, check the weather forecast and, on arrival at the Club, telephone the Harbour Master (01903 721215 or mobile 07775 743078) to see if there are likely to be any shipping movements that could affect the race programme.
4. Based upon the weather forecast, current wind direction and strength, and other relevant factors, the Race Officer should decide whether racing is to be in the river (dinghies and keelboats only) or at sea, whether the course will be set in advance or once at sea and, if the former, the course that he/she will set and the number of laps to be sailed and whether you will adopt Average Lap Racing (see Section 5. below).
5. Put out separate signing-on/declaration sheets for dinghy/keelboat and cruiser competitors to complete when they arrive.
6. Not less than 1¼ hours before the scheduled time of the first start if at sea, or one hour if in the river, the Race Officer should have a briefing with members of the Team to allocate responsibilities for the following, in order to avoid subsequent confusion or misunderstandings:
 - a. The laying of marks. If racing is to be at sea, this should normally be done by the Race Officer him/herself. If in the river, the marks can be laid by one of the safety boats in the positions directed by the Race Officer.
 - b. Towing. If towing is likely to be necessary, either before or after the race, allocate specific responsibilities to the safety boats, having regard to the need for maintaining safety cover for competitors that may be at sea whilst towing other competitors out of or into the river.
 - c. Safety Patrol. During the races, individual safety boats should have responsibility for patrolling a given section of the course when not actually engaged in rescue functions. It should be borne in mind that most incidents normally occur on the reaching legs of the course and, particularly, in the vicinity of gybe marks, but that all sections of the course need to be monitored at all times.

- d. Communication with the Race Officer. This will normally be via VHF radio (see Section 4) but, in the event that a radio should fail, it is recommended that the safety boat should make periodic contact with the Committee Boat at, say, half hourly intervals.
- e. Collection of Marks. As the race draws to a close, the racing marks can be lifted by one of the safety boats, after the last competitor has rounded them, thereby leaving the Race Officer with the responsibility of lifting the finish mark after the last boat has finished. Safety boats will therefore need to be aware if the course has been shortened and, more particularly, exercise care before lifting a mark in case there is a straggler left to round, or where some marks may be required by any cruisers still racing. **To avoid any such problem arising, no mark should be lifted without the Race Officer's prior approval.**

Upon completion of the Team Briefing, the Race Officer should sign-off the Risk Assessment Form for the day's racing and post it in the Racing Secretary's pigeon-hole in the Club foyer.

Remember: The Race Officer has overall and ultimate responsibility for the day's activities and the decision must rest with him/her as to whether to race in the river or at sea, and whether to shorten, cancel or abandon any race.

3. The Equipment You Will Need

1. Fuel for the boat. Ensure that the fuel tanks are full and that there is adequate spare fuel in a can aboard each boat.
2. Safety canister for each boat. These are kept in the locker on the Club balcony by the flagpole and should contain a First Aid Kit, knife, etc., (lock code: 689). **Please remember to return them after use.**
3. A buoyancy aid for each person. If you do not have your own, there is a supply in the cupboard in the gents changing room and/or the Training Shed.
4. Anchor and warp. Ensure that each boat has its anchor and warp firmly attached.
5. Operating radios (see Section 4 below).
6. Race marks and ground tackle. Ensure that there are sufficient marks for the course that you propose to lay, each with an adequate length of warp and ground tackle attached and that it is untangled and free-running before leaving the moorings or beach.
7. Warm and waterproof clothing. Remember that the Committee and safety boats are open and that you are likely to be at sea for some time, possibly in adverse weather conditions. There is also the possibility that, under extreme conditions, it may be necessary to enter the water in order to effect a rescue.
8. A weather protected pad with lap time sheets, pen and 2 pencils and some scrap paper*.
9. A sound signal. Whilst there is a sound signal permanently fitted on Diamond, it would be prudent to also take an air horn, with spare canisters, or a whistle which should be found in the cupboard in the foyer*. Check that it works before leaving!
10. A stop watch and hand bearing compass. These should also be in the hall cupboard*.

11. A racing burgee, also in the hall cupboard*.
12. Your Club OOD Pack, Tide Tables, and the Club Sailing Instructions*.
13. The Racing Rules of Sailing*.
14. The following flags, as appropriate:

Orange Flag:	To indicate the Committee Boat end of the start/finish line.
Blue Flag:	To indicate that the Committee Boat is on station at the finish.
Numeral Pennant 9:	Warning Signal – Dinghies/keelboats.
Third Substitute:	Warning Signal - Cruisers.
ICF J:	Warning Signal - Cadets.
ICF P:	Preparatory Signal.
ICF X:	Individual Recall.
First Substitute:	General Recall.
ICF S:	Shorten Course.
ICF N:	Abandonment - Will Start Again Shortly.
Answering Pen (AP):	Postponement.
ICF A (below N):	Abandonment - No more racing today, or
ICF A (below AP):	Postponed - No more racing today.
ICF H (below N):	Abandonment - Return Ashore, or
ICF H (below AP):	Postponed - Return Ashore.
ICF G (below AP):	Shipping Movement – stay on the beach/moorings/at sea until removed.

***NOTE:** It is intended that items 8 to 13 above will all be contained within a Race Officer's Case which will be available from the hall cupboard.

4. Radio Communications

A fixed marine VHF radio is fitted to the Committee Boat and each safety boat to ease communications between each other, the Race Officer, the Club and emergency services. These operate off the boat's battery so should not need re-charging. The following brief comments are intended to assist in their proper operation, but are not intended to be exhaustive.

There are only four Channels that operators may need to use:

Channel 16	For <u>EMERGENCIES ONLY</u> to contact the Coastguard and to <u>ONLY</u> be used by the Race Officer.
Channel M1 (marked as P1 on some sets) also known as Channel 37	For communicating with the Clubhouse.
Channel M2 (marked as P2 or P4 on some sets)	For communications between the Committee and safety boats and, as a general rule, with competitors in cruiser races.
Channel 71	For communications with the Harbour Master and any commercial shipping using the harbour.

The Club and each boat has its own Call Sign as follows:

The Clubhouse	"Lisboa"
The Committee Boat	"Diamond" or "Race Control"
The BWM RIB	"John Hughes"
The Ribtec RIB	"Gwen"

The other safety boat

“George Andrews”

Before leaving the moorings, the coxes of each boat should carry out a radio check with each other on Channel M2. If any faults are found, please seek assistance to see if they can be resolved before setting out.

It is essential that the radios are only used for necessary messages and not for general chat.

To transmit a call, make sure that the required Channel is selected and that it is not already in use, then depress the button on the microphone and speak into it in a clear and distinctive voice – do not gabble! Exchanges should be brief. Release the button immediately you have completed your message as you will not hear any reply until you do so.

The station initiating the call should state the name of the station it is calling three times, followed by its own call sign. For example, for the Committee Boat to call the Ribtec, the call would be:

“Gwen, Gwen, Gwen this is Diamond, over”.

The reply would be: *“Diamond, this is Gwen, over”.*

Do not convey your message until the receiving station has acknowledged you in this way, then proceed - Response: *“Gwen, this is Diamond, would you please proceed to the windward mark and await further instructions. Over”.*

Reply: *“Diamond, this is Gwen, Roger. Out”.*

When a reply is required, the message ends with *“over”*. When the transmitting station sends its final message, it ends with *“out”* and should be acknowledged by the other station, ending with *“out”* - **never** *“over and out”* - that is only reserved for spoof movies! In this way other listeners know whether the airwaves are clear or whether there is ongoing traffic. If the latter, they should not interrupt.

Communications between the Committee Boat, safety boats and cruisers should always be on Channel M2 (sometimes marked as P2 or P4), with radios set to low power, and they should maintain a listening brief on that station. However, the Club listens in on M1 (P1 or Channel 37), so any communications with the clubhouse will need to be on this Channel. To avoid any confusion, any messages **other than on Channel M2** should be made **only by the Committee Boat**. Should one of the safety boats have a need to communicate outside the net, she should only do so via the Committee Boat. To make communications beyond the immediate race course, the Committee Boat may need to adjust its radio power setting to high, but should return it to low power immediately afterwards.

If any shipping movements are expected, towards the end of a race at sea the Race Officer should attempt to make contact with the Harbour Master on Channel 71 to see if it is safe for competitors to return to the harbour. If shipping movement is imminent, the Race Officer should make two sound signals and display AP over ICF G which indicates that no competitor may enter the harbour until the flag has been removed.

In the unlikely event of an emergency, contact can be made, by the Committee Boat, with the Coastguard on Channel 16. Unless circumstances deem it inappropriate, **such contact should only be made by the Race Officer**.

If the emergency is life-threatening, the call would be: “*Mayday, Mayday, Mayday, this is launch Diamond. Casualty in the water located....off Littlehampton Harbour Entrance* (or whatever the nature of the incident is). *Urgent assistance required*”. If the emergency is serious, but not life-threatening, the message would start “*Panpan, Panpan, Panpan, this is launch Diamond.....*”. In either case, the coastguard will reply and you should then proceed as instructed by him. He may require you to change to a different working Channel or he may keep you on Channel 16. The Race Officer should remain on this Channel until the emergency is over and, if possible, let the safety boats know that the emergency has been relayed and that any further urgent communications with the Committee Boat should also be on Channel 16 (or such other Channel as may be designated by the Coastguard) until the emergency is over.

5. Setting The Course

In general, a race should always, wherever possible, start with a windward leg and the first mark should, ideally, be set so that it is rounded to port.

In The River

In view of the restricted water available, the scope for laying an ideal course is limited. Normally one mark should be laid approximately mid river opposite the LSMC’s new moorings, another mark laid towards the east side of the river, off Fisherman’s Quay, and a third mark laid further upstream. It may sometimes be possible to incorporate an additional mark in such a position as to create a short beat across the river to provide a more interesting and challenging course.

The slower boats (particularly the Toppers) have considerable difficulty in making way over the tide and consideration should, therefore, be given in light wind conditions to adjusting the start times to shortly before high water so that they have a reasonable chance of sailing to their handicap.

The norm for Club racing is that we should sail Average Lap Racing with a race duration (in the river) of about 35 minutes +/- 5 minutes. However, should you wish to set a specific number of laps, depending upon wind conditions, between 4 and 6 laps should be set for the fast handicap and 3 or 4 laps for the slow handicap boats.

It is essential that the course and all relevant information is displayed on the notice board on the Club balcony **at least** 30 minutes before the warning signal of the first race, but ideally earlier.

N.B. It is particularly important to check with the Harbour Master for any shipping movements before laying marks in the river.

At Sea

Ideally, other than in the winter, weekend dinghy/keelboat races and all cruiser races should be held at sea (weather permitting).

For **dinghy/keelboat racing**, courses will be displayed *either* on the notice board on the Club balcony *or* be shown as a course identification letter on the board fitted on the side of the Committee Boat. The three alternative course configurations (each with a port or starboard rounding option) are set out in Appendix D to the Club Sailing Instructions.

The norm for Club racing is that we should sail Average Lap Racing with a race duration (at sea) of about 40 minutes +/- 5 minutes. However, should you wish to set a specific number of laps, depending upon wind conditions, between 3 and 4 laps should be set for the fast handicap and 2 or 3 laps for the slow handicap boats.

It is essential that the course and all relevant information is displayed on the notice board on the Club balcony **at least** one hour before the warning signal of the first race.

Generally, a simple triangle, or a “P” course, will give good racing for a mixed handicap fleet. The “P” course offers a benefit over a simple triangle in that it incorporates a true downwind leg as an additional point of sailing. However, in shifting wind conditions it can be preferable to set a simple windward/leeward course as this is easier to adjust quickly should the need arise.

Whenever possible the course should start with the first leg being laid precisely into the wind, unless a tidal bias has been deliberately applied. The length of the legs will, to some extent, depend upon the weather conditions, but for Club racing it is preferable to set relatively short legs, as the duration of the race can be more easily adjusted to the target time.

For **cruiser racing**, courses will *either* be displayed on the notice board on the Club balcony *or* be announced over the VHF on Channel M2 prior to the warning signal. Whichever procedure is to be used must be notified on the notice board on the Club balcony **not less** that one hour before the warning signal of the first race.

Unless otherwise indicated on the notice board, a modified gate start will be used as described in Appendix B to the Club Sailing Instructions and the race will be started by the Race Officer on a competing boat. This will necessitate the laying of the start/finish marks and any others to be used that are not referred to in Appendix A to the Sailing Instructions.

If a conventional Committee Boat start and starting line are to be used, the principles referred to in Section 8 below will apply.

Where a single cruiser race is scheduled, it will usually be possible to utilise the fixed marks referred to in Appendix A of the Club Sailing Instructions, possibly just utilising one laid mark so as to create a true beat. If the cruiser race is being run concurrently with dinghy racing, it is usually possible to utilise the same starting line and windward mark. Normally, one lap will suffice, increasing the course length by the inclusion of a loop between marks as felt appropriate to reflect prevailing weather conditions. However, as a general rule, it is better to err on the side of a shorter course to avoid deterring the slower boats which may have difficulty making way against a strong tide. Alternatively, it may be possible to adopt Average Lap Racing to give the faster boats a longer race (see next para. below)

Where two cruiser races are scheduled in a day, it will be necessary to lay a relatively short course, probably around laid marks only, and to adopt Average Lap Racing. The target time for each race should be specified on the notice board on the Club balcony **at least** one hour before the warning signal of the first race. Where two races are scheduled, the suggested target time for each race would be approximately 50 minutes +/- 10 minutes, bearing in mind that the time limit for all competitors to finish is 30 minutes after the first boat has finished.

General

When you have decided on the course or courses that are to be set and whether you are going to prescribe a set number of laps or adopt Average Lap Racing, specify this on the notice board on the Club balcony making sure that you state the following information:

1. The date and name of the event.
2. The start time. If for any reason you need to postpone the start time this should be clearly stated and appropriate postponement flags flown from the club flagpole.

3. If you are going to adopt Average Lap Racing, the target duration of the race and the +/- period to be applied.
4. If you are planning a set number of laps, the number of laps to be sailed and, if this is to differ for fast/slow handicap dinghies (PYN under 1100 and 1100+), make this clear.
5. For dinghies, whether you are going to display the course from the Committee Boat or, if not, the course to be sailed and the approximate location of start and finishing positions.
6. For cruiser racing, whether you are going to announce the course over VHF Channel M2 or, if not, the course to be sailed and the approximate location of start and finishing positions.
7. For cruiser racing, make it clear if competitors are required to take their own elapsed times (i.e. the time from the starting signal until the boat crosses the finishing line) including, for Average Lap Racing, their times **at the completion of each lap**.
8. Include any other specific instructions for competitors that you wish to give (i.e. towing arrangements, shipping movements, tide times, weather forecast, etc.).

NOTE: THE DETAILS SHOULD BE DISPLAYED AT LEAST ONE HOUR BEFORE THE SCHEDULED TIME OF THE WARNING SIGNAL FOR THE FIRST RACE.

6. Towing

Where dinghy/keelboat races at sea are scheduled to start before high water, it is often necessary for competitors to be towed out of the river.

This is one of the principal areas of difficulty with sailing at Arun and a lack of care and understanding by both competitors and safety boat crews has led to problems that, with some basic precautions, could have been avoided. It is, therefore, essential that the following guidance is noted.

Whilst it may often appear that competitors will be able to sail out against the tide, problems invariably occur when they reach the narrows opposite the east mole. Here, the wall on the west side is higher than it is further up-river so that the wind is blanketed and the tide is at its strongest. This is where most dinghies get stuck and the worst difficulties arise. Boats try to struggle against the tide and bunch up, causing a major obstruction to other river users and each other. Should such a situation arise, it is essential that the safety boats immediately attend and take the boats in tow. However, with proper forward planning, this problem should not arise.

To avoid such difficulties, dinghies should normally be taken on tow off the launching area in front of the dinghy pen. This means that safety boats need to be in position **at least** 40mins before the start **and** competitors need to be fully rigged and ready to launch by the same time. For towing purposes all dinghies/keelboats are required to carry a towing line of at least 10m in length and not less than 6mm in diameter.

It is usually possible for each safety boat to tow four or five dinghies/keelboats at a time. On each tow, the longest or heaviest boat should be at the front of the tow and the smaller boats and single-handers at the back. The safety boat should hold station just off the LSMC moorings so that each dinghy can sail off and take up the tow **without having to bear away onto a reach**. In this way, the boats approach the tow under control and at slow speed. As successive dinghies/keelboats attach to each other, move forward slowly to allow later boats to approach the back of the tow under the same control.

As soon as the requisite number of boats are securely attached, ensure that dinghies have their centreboards at least half down and kicking straps eased, and that their crew weights are towards the stern, before moving forward at a steady pace.

If, for any reason, a dinghy/keelboat misses the end of the tow, **never** turn down tide to pick it up if you already have other boats on tow. Leave the boat to make its way back to you or ask it to return to the beach.

As you proceed down the river, **keep to the west side** (i.e. to the right), maintaining a course about 5m from the side of the river, but move out to about 10m opposite the end of the east mole to avoid the shoal about 100m beyond on the west side of the river. **Maintain this position relative to the west wall until you are about 200m PAST the end of the east mole.**

It can be tempting to cross the river early and try to cut the corner, but this is where most of the problems arise. The tide gushes around the end of the east mole and, if you try to cut the corner at this point, the boats under tow will string out behind you across the river and cause a major obstruction to other river users. Whilst you might think that, if you keep to the right, the tide will push the towed boats onto the west wall, in fact, the tide bounces off the wall and largely neutralises that effect. If you maintain good speed and the dinghies have their centreboards half down they should be able to steer themselves in line astern of you. **NB: It is important that the dinghies steer in line with the stern of the tow boat.**

Only when you are comfortably beyond the first marker pole on the east side should you consider crossing the river. **However, beware another potential problem!** If there is a strong breeze from the south west, as you cut across to the east, the dinghies' sails will fill and there is a risk of them overtaking you without the ability to slow themselves down. If there is a risk of this happening, do not cross the river but, instead, gradually move out from the west side to about mid-stream and proceed on down river until they can sail under their own power, then allow them to peel off the tow **from the back first**. In light winds it may be necessary to proceed to the end of the west works before steering gently into the wind to allow the dinghies safely to detach themselves.

Once all the dinghies/keelboats on your tow are safely released, if necessary return into the river to pick up any remaining boats. However, also ensure that there will be at least one safety boat left at sea to look after those you and others have already taken out. **Before returning to the harbour, make radio contact with the Race Officer so that he/she is aware of what is happening.**

Generally, with an on-shore breeze, the dinghies/keelboats should be able to sail back into the river after racing has finished. However, if the wind is light, or the ebb tide very strong, they may need a tow. In that event, it is important that the tow is established **before entering the harbour.**

The safety boats should take up position about 200m off the harbour entrance, idling forward **into the wind**. The dinghies/keelboats should take up their tow behind you with their sails flapping and, if practicable once attached, drop their mainsails (but not on single handed boats) but keep their jibs up. When the boats are firmly attached, you can start to move off and turn towards the harbour. However, be sure to make your turn away from the wind in such a direction that **the boats with their sails still up are not required to gybe**.

Proceed up the river about 5m out from the east (right hand) side until you are off the LSMC moorings then, if all is clear, gradually cross the river to the beach in front of the dinghy pen. Be careful to ensure that you approach to such a position that the boat at the back of the tow is opposite the beach (not the cruisers moored on the LSMC pontoons) before letting them detach themselves one at a time **from the back first**.

The foregoing difficulties are significantly reduced if sailing is to take place over low water as, normally, boats can sail out and back in with a following tide. However, **this creates a new problem for the Committee and safety boats that you need to be aware of**.

Extreme care needs to be taken when approaching and crossing the bar at the river entrance to avoid grounding or fouling the propeller on the bottom. This shallow area extends from approximately 100m inside the line of the end of the west and east works to 400m to seaward. The Committee Boat should put to sea **at least** one hour before low water and, following later, the outboards on the RIBs should be tilted well up, so that the props are only just below the surface of the water, whilst in this danger zone.

7. Laying the Course

For river racing it is suggested that the marks are laid by one of the safety boats in the positions requested by the Race Officer. When laying the course, the following points should be borne in mind.

1. Before dropping a mark, make sure that there is ample space for it to drift with the wind and the tide on the anchor line, including the probability of the tide changing during the course of the race.
2. Due to the strength of the tide, it will be necessary to ensure that there is a longer anchor warp and heavier anchor than would be necessary to anchor a buoy in still water.
3. If the Race Officer wants two marks laid so as to create a beat to windward between them, take a racing burgee with you and use this to ensure that a true beat is created, making due allowance for the effect of the tide. Due to the presence of buildings and other obstructions, the wind direction on the water will probably be quite different from that apparent from the Club balcony.

For sea racing, the course should normally be laid by the Race Officer and will require more time and a little more skill.

General. With the prevailing winds being predominantly from the south west quarter, the following examples will assume that the inshore mark will be the leeward mark. The procedure can be relatively easily adapted should there be an offshore wind, although in that event it would be appropriate to lay the windward (inshore) mark first, then the gate, leeward and wing marks in that order, as appropriate.

If racing is to be over a falling tide, ensure that the inshore mark is sufficiently far out for there to be an adequate depth of water at all times during the race, especially for keelboats and cruisers.

Also ensure that the position that you take up allows room for the whole course to be laid to one side or the other of the harbour entrance, well clear of the shipping lane.

A. For a Windward/Leeward Course

- A.1. Proceed to sea with the requisite race marks on board and take up position approximately where you propose laying the inshore mark. Having arrived at approximately the right position, stop the boat and wait until it is still in the water and then ascertain the true wind direction with the aid of a racing burgee. **If the boat is moving, this will distort your reading of the wind direction that you are about to take.**
- A.2. Move to a position that you consider appropriate and, when you are satisfied, drop the first mark, which will become the leeward mark of the course (or the windward mark if there is an off-shore wind). Ensure that the engine is out of gear and that the line and ground tackle is kept well clear of the propeller until you are satisfied that boat has drifted well clear from the anchor line.
- A.3. Motor up-wind for the desired distance (approximately 600m is usually adequate for Club racing – a little longer in a stiff breeze and shorter if the wind is light). Stop the boat and, with the racing burgee, check that you are dead up-wind of the leeward mark or, if there is a cross-tide running, about 5° to 10° down-tide, and then drop the windward mark.
- A.4. Return to the leeward mark and again check the wind direction and adjust the position of the leeward mark if it has shifted.
- A.5. Once you are satisfied with the course you have laid, take up position to anchor at the starting line (see section 8 below).

B. For a “P” Course

- B.1. Proceed as if you were going to lay a windward/leeward course but, after laying the leeward mark, stop after you have gone about 200m towards the wind and lay what will become the starting/finishing gate mark and then proceed up-wind and lay the windward mark about 400m further on as in A.3. above.
- B.2. Before moving off to lay the wing mark, it helps if you can calculate the bearing of the heading you will need and the required back bearing. You should be aiming to create a triangle based upon the windward, wing and start/finish marks that will give a fine reach to the wing mark and a broad reach from the wing to the gate mark.
- B.3. Drop the wing mark in the desired position and then motor back to the start/finish gate mark and, before proceeding to lay the start line, take one further check with the aid of the burgee to ensure that the wind has not shifted and that it is still a true beat from the start/finish gate to the windward mark. If necessary, move the start/finish gate mark to restore a true beat.

C. For a Triangular Course

- C.1. The procedure is similar to laying a ‘P’ course, except that you omit the gate mark part way up the windward leg and should aim to lay a course that approximates to an equilateral triangle, or one with a 90° inner angle at the wing mark and with reaching legs of roughly equal length.

- C.2. Once you are satisfied with the course you have laid, take up position to anchor at the leeward mark to lay the starting line (see section 8 below).

8. Laying The Starting Line

In The River

The start line will be between the Club flagpole on the balcony and an orange flag on a stand you will need to site on the Harbour Board pontoons on the opposite side of the river. Specify this clearly on the blackboard, together with the direction of the start (i.e. upriver or downriver) which should be selected to give a first leg that is closest to a beat (i.e. downriver for a southerly wind and upriver for a northerly wind). If the wind is blowing across the river then set the start direction **against** the tide.

At Sea

The start line will be between the mast of the Committee Boat from which you will fly the orange flag and the start/finish gate mark. The Committee Boat should always be positioned on the outside of the course (i.e. for a port hand course, the Committee Boat will be to starboard of the gate and vice versa for a starboard hand course).

The Committee Boat should be anchored in a position where the start line is as near as possible **at right angles to the wind** and having a length for Club racing of 50 to 75m. If possible, the line should have a slight (i.e. up to 5°) port end bias, which means that the port end of the line should be slightly upwind of a true right angle. This will tend to spread the boats out more evenly down the line. For example, for a wind direction of 225°, the bearing from the Committee Boat to the gate mark would be 140° (225° - 90° + 5° bias). You will therefore appreciate that the use of the hand bearing compass can be helpful in this exercise.

However, before taking up your final position to drop anchor, don't forget that the boat will swing on the anchor line before taking up its final anchored position. In a strong breeze, the Committee Boat will probably drop back roughly in line with the wind but, under light wind conditions, it may well swing in the direction of the tide. Consequently, try to adjust for the anticipated swing before dropping the anchor. Once this has been done, and you are satisfied that the anchor has held, check the start line in relation to the wind direction. If this is approximately correct then so well and good but, if not, you should lift the anchor and try again; alternatively you could get one of the safety boats to re-position the gate mark relative to you. From a competitor's point of view, there is nothing more frustrating than trying to start across a severely biased line, as all the boats will inevitably try to start at the favoured end, leading to chaos!

Once you are satisfied that the starting line is correctly laid, display the orange flag on one of the masts (the one you select will indicate the precise end of the start/finish line) to indicate that the Committee Boat is on station. You can now prepare to start the race.

9. The Start Procedure

This is basically the same whether racing is in the river or at sea. For obvious reasons, cruiser racing is only held at sea.

All races start on a 5 – 4 – 1 minute - Start sequence

For most Club racing, there should be separate starts for dinghies and cruisers, but all cruisers should start together, as should all dinghies and keelboats. For combined Club and Open meetings and special Cadet events, separate starts may be appropriate.

The warning signal for dinghies/keelboats is Numeral Pennant 9 and the warning signal for cruisers is the Third Substitute. The preparatory signal for all is ICF P.

Before commencing the start procedure, make sure that you have the orange flag flying from the appropriate mast and the following flags are attached to different halyards ready to display at the appropriate times.

For dinghies/keelboats - Numeral Pennant 9, ICFs P and X, the Answering Pennant and the First Substitute.

For cruisers – Third Substitute, ICFs P and X, the Answering Pennant and the First Substitute.

The following is the procedure for starting a dinghy/keelboat race.

When you are ready, and not sooner than 5 minutes before the scheduled start of the race, simultaneously start the stop watch, make a sound signal and display Numeral Pennant 9.

Precisely 1 minute later (four minutes before the start), make a sound signal and display ICF P.

Precisely 3 minutes later (one minute before the start), make a long sound signal and remove ICF P.

Precisely 1 minute later (at the start), make a sound signal and remove Numeral Pennant 9.

In the event that you should inadvertently mistime the making of any pre-start signal, immediately make two sound signals, display the Answering Pennant and remove all other flags (apart from the orange flag). When you are ready to re-commence the start procedure, make one sound signal and drop the Answering Pennant. Precisely one minute later, make a sound signal and display Numeral Pennant 9 and then proceed as before with the four, one minute and Start signals.

If one or more **identifiable** boats are over the start line at the starting signal, sound a second sound signal and display ICF X and leave it flying until all premature starters have returned and started correctly, or for a period of four minutes after the start, whichever is the earlier. Record the sail numbers of any premature starters that do not correctly re-start as OCS (on course side).

If there are a number of **unidentifiable** premature starters, sound two additional sound signals (i.e. three, including the original starting signal) and display the First Substitute. This signifies a general recall and that all boats should return for a fresh start. In that event, when you are ready to resume a fresh starting procedure, make a single sound signal and remove the First Substitute. Precisely one minute later, make a sound signal and display Numeral Pennant 9 and then proceed as before with the four, one minute and Start signals.

Where more than one dinghy/keelboat race is scheduled, commence the start procedure for the second race as soon as possible after the last boat in the first race has finished, remembering to remove the blue flag (see para. 10 below) before you do so.

If there are separate races scheduled for keelboats, Cadets or an Open Meeting, you would proceed in just the same way, simply substituting their designated warning signal, as appropriate.

Once you have completed the start procedure and all boats have started correctly (or it is obvious that some identified premature starters have no intention of returning) you can tidy up and prepare for the finish.

For starting a cruiser race from a fixed line, the general principles are identical except that the warning signal is the Third Substitute, i.e.:

5 minutes before the start make a sound signal and display the Third Substitute.

Precisely 1 minute later (four minutes before the start), make a sound signal and display ICF P.

Precisely 3 minutes later (one minute before the start), make a long sound signal and remove ICF P.

Precisely 1 minute later (at the start), make a sound signal and remove the Third Substitute.

The procedure for individual or general recalls is as for dinghies. In the event of a general recall, make a sound signal when removing the First Substitute and precisely one minute later make a sound signal and display the Third Substitute. The start will be precisely 5 minutes later.

For the cruiser Gate Start procedure, please refer to Appendix B of the Club Sailing Instructions.

10. The Finishing Line

This should be the same as the starting line as, to adopt anything different, makes it impossible to calculate results for Average Lap Racing or where slow handicap boats sail a lesser number of laps than the faster boats.

For cruiser racing, it is usually acceptable to ask competitors to take their own **elapsed** finishing times which they enter on the declaration form which you will have left for them in the clubhouse. However, for dinghies you need to record their elapsed time **each lap** and when they cross the finishing line.

As soon as the start procedures have been completed, display the blue flag. This signifies that the Committee Boat is on station at the finish and that, thereafter, every competitor must pass through the line each lap.

11. The Race

During the course of the race, the safety boats should be patrolling their designated sectors of the course and keeping a careful watch on all competitors, particularly novices and stragglers who may be more inclined to get into difficulties. In the event of boats capsizing, it is advisable that the safety boat stands by, leaving the competitor to right their dinghy on their own. It is only if it is obvious that they are unable to do so, or are getting into real danger, that you should go in and take the crew off and endeavour to recover the dinghy yourself. In that event **BEWARE OF YOUR PROPELLER WHEN MAKING YOUR APPROACH**. As a general rule it is usually best to approach the bow of a capsized dinghy and work to manhandle yourself along to the shrouds or mast from there.

The Race Officer should also keep a general eye on competitors and, as a last resort, be prepared to abandon the race, up-anchor and effect rescue. However, this should **only** be necessary in extreme situations.

The Race Officer should record the sail number and **elapsed** time of each competitor as they pass through the finish gate at the end of each lap. When recording the lap times, you should remember to record the time from the actual start of the race and **not** from when you commenced the start procedure five minutes earlier!

12. Finishing Procedures

For all racing it is necessary to take the time for each competitor as they pass through the start/finish gate each lap.

For Average Lap Racing, you will need to decide at what point to finish the race. The whole principle of Average Lap Racing is that it should be possible to arrange the length of the race so that the majority of competitors are racing for approximately the same period of time, regardless of the number of laps they have sailed. Consequently, you need to look for a natural split in the fleet somewhere within the target time bracket you have set and to finish the race as each boat crosses the line thereafter. You need to indicate this by displaying ICF S with two sound signals when the first boat you want to finish is about 200m from the finishing line. **This does not need to be the race leader.** You will then need to time each competitor as they cross the line and give them a sound signal (unless they were OCS at the start).

If the race is set to run for a designated number of laps and has run the length that you originally set, then you should record the elapsed time of each competitor as they pass through the finishing line, giving each a sound signal as they cross.

However, it is quite possible that you may wish to shorten the course, in which case you should adopt the following procedure.

Attach ICF S to a halyard and, when the **leading boat** in the race is approaching within earshot (about 200m from the line) on the lap at which you want to shorten the race, make two sound signals and display ICF S. This signifies that the race will finish when the leading boat and following competitors next cross through the finish line and you should record their elapsed times, and give a sound signal in acknowledgement, as they do.

Whilst it is theoretically possible to shorten a race at any mark of the course, this will make it impossible to calculate corrected times if some of the slow handicap boats are sailing a lesser number of laps. Consequently, it is desirable only to shorten a course at the end of a completed lap.

If there is more than one race scheduled for the day, it might be prudent to ask the safety boats to physically shorten the legs of the course between races if experience has shown that the course you have laid is too long. This can usually be done quite quickly with a little forethought. Towards the end of the first race ask two safety boats to take up position at the windward and (if laid) the wing marks respectively and get them to lift and move the marks to your instructions after the last boat has rounded. In this way, by the time the last boat has finished, the new shorter course should have already been laid.

13. Post Race Responsibilities

Hopefully, if the pre-race briefing has been remembered and the safety boats have picked up the race marks as the fleet progresses round the last lap (after first confirming with him), the Race Officer will merely be left to pick up the finishing mark once the last boat has finished. However, it remains the responsibility of the Race Officer to ensure that all the marks have been retrieved before he/she returns to the harbour.

If the cruisers are still racing and they are taking their own times, you will need to leave all necessary marks in place for them, together with one to replace the Committee Boat, and ensure that these are collected later.

If it is likely that dinghies will need a tow back up the river, the safety boats should proceed immediately towards the river and take the dinghies on tow before they enter the harbour entrance. This is preferable to attempting to take them on tow in the busy and restricted narrows.

The Race Officer on the Committee Boat can take stragglers on tow **and it is his/her responsibility to ensure that all competitors have safely returned.**

When all competitors are accounted for, the safety boats should return the race marks from whence they came (**and not leave them in the safety boats**) before resuming their allotted moorings. It is the responsibility of the Cox of each boat to ensure that his/her boat is correctly and securely moored. Before returning the key and other equipment to the relevant places, each Cox should top up the fuel tank from the spare container on board ready for the next time the boat is needed.

Each Cox is also responsible for completing the log book in the Clubhouse and, if necessary, recording any defects or missing equipment, drawing this to the attention of the Race Officer, who should also ensure that the Bosun is made aware of the deficiencies.

If there are any protests or requests for an Exoneration Penalty and/or an Advisory Hearing or RYA Arbitration procedures of the RYA Rules Disputes Procedures, these will need to be dealt with by the Race Officer as appropriate, the details of which go beyond the scope of these notes and reference will need to be made to the RRS and/or the RYA Rules Disputes Procedures, which are contained within OOD's pack.

The Race Officer is expected to calculate the corrected times of all competitors and enter these on the time sheets. On the back of the time sheets is a list of the Portsmouth Yardstick Numbers (PYN) for the majority of dinghies, keelboats and cruisers sailed at AYC. However, if you are uncertain of any boat's PYN, leave it blank and the Racing Secretary will complete the results later.

The following is the procedure to correct a boat's **elapsed** time to its **corrected** time.

Firstly, convert the elapsed time into seconds (hour x 60, add minutes, x 60, add seconds), then multiply the answer by 1000 and divide by the PYN and round to the nearest whole number. For example, to calculate the corrected time of a Laser (PYN 1078) with an elapsed time of 1hr 15mins and 25secs, proceed as follows:

1hr X 60 = 60mins, add 15mins to give 75mins, x 60 = 4500secs, add 25secs to give an elapsed time of 4525secs x 1000 = 4525000 / 1078 = **a corrected time of 4198.**

For Average Lap Racing, you will also need to divide the corrected time by the number of laps that the specific boat sailed and to then multiply that by the number of laps sailed by the fastest boat. The resultant number will be the corrected time that you will use to calculate the final finishing positions.

For racing over a fixed number of laps, but with the slow handicap boats sail less laps than those in the fast handicap, it will similarly be necessary to adjust the slow handicap boats' times to reflect that. Let us assume that, in the above example, the Laser sailed 3 laps and a Topper (PYN 1290) sailed 2 laps in an elapsed time of 1hr 1min and 55 secs, the Topper's corrected time would be calculated as follows:

1hr x 60 = 60 minutes, add 1min to give 61mins, x 60 = 3360secs, add 55secs to give an elapsed time of 3715secs. To convert this to a 3 lap equivalent, divide by 2 and multiply by 3 to give 5572secs. To correct this, take $5572 \times 1000 = 5572000 / 1290 =$ **a corrected time of 4320.**

The boat with the lowest corrected time is the winner. Check that all competitors have signed on and off on the declaration sheet (and note any that have failed to enter or to sign off within the time limit), record the finishing position of each boat on the time sheet, ensure that the race results are clearly legible and are properly headed with the details, date and time of the race, and then post the results sheets, together with the signing on/declaration sheet, on the Race Results Board in the clubhouse. Please remember that if you, or any member of your team, wishes to be awarded average points in the series for which you/they have officiated (see para. 6(g) of the Club Sailing Instructions) you should note this on the results sheets so that the Racing Secretary is made aware.

When all the boats and equipment have been tidied away, you will then have earned the grateful thanks of all the competitors, and of the Club, for a job well done and you can retire to the bar!

THANK YOU.