HSC – Basic Race Management Instructions

Introduction

1. Fairness

   The reason care is taken to set a good course and run the race properly is to make it fair for all competitors irrespective of their talent or experience.

2. Race Officer

   This is the person in charge of the race management team and takes responsibility for setting a course and starting & running races. The RO will instruct members of the team what to do and he/she should be able to count on their cooperation and assistance to carry out those instructions.

   Before leaving shore, the RO will brief team members on their tasks out on the water. This includes how the racing will proceed during the afternoon and the role of each race management boat. The RO will also ensure each race management boat has the necessary equipment on board before heading out on the water.

3. Safety / Documentation

   HSC runs races in accordance with the current Sailing Instructions for competitors. These instructions inform competitors of the types courses that can be set and how races will be started and conducted by race management teams. The SIs are pinned on the HSC notice board and can be viewed on the HSC website.

   Before any racing can begin, the RO gives a briefing to sailors prior to them leaving shore. An onshore briefing is usually held 75 minutes before the scheduled start of the first race. Competitors are advised of current/expected weather conditions and proposed course(s) to be set, and any other issues they should be made aware of.

   HSC requires that all competitors fill in details on the Sign On sheet next to the briefing board. The RO makes a photocopy of this sheet and leaves it the briefing area. Competitors must "sign off" when they return to shore. This applies whether they finish a race or not. The RO takes the original copy of the Sign On sheet on board the start boat.

   The international racing rules make it quite clear that it is up to each competitor to decide whether to race or not. Once out on the water the RO and race management team members are responsible for the safety of those taking part in the racing.

Equipment

The RO is also responsible for ensuring that the all the necessary equipment to run the races is allocated to the race management boats. This includes:

a. Radios – Communication between race management boats, and with the clubhouse, is by UHF radio using channel 73. Before leaving shore, each boat should do a radio check to ensure reception is good and the volume is adjusted to hear incoming calls.
b. Buoys – The types and numbers are allocated to the boats for course laying.

c. Ropes and anchors – Tubs containing a rope, chain and anchor (one for each buoy) should be placed on race management boats.
d. Blower – This is used to inflate the buoys out on the water. Before leaving shore it is important that it is tested and the spare battery is fully charged.
e. Pelican Case – This is to be stored on the start boat and contains the following: hand-held compass, wind direction indicator (wool on wire), wind speed indicator, binoculars, GPS apparatus, spare batteries. Battery operated devices should be checked they are working before leaving shore.
f. Flags – Those that are to be hoisted on the signal mast on the start boat are stored in tubes on the start boat. Other flags are tied to short wooden masts. The RO must ensure that all necessary flags are on board before leaving shore.
g. Clock / Timer – Necessary for counting down to the start of each race and also recording times of competitors as they cross the finish line. Most mobile phones have a timer / stopwatch capability.
h. Air Horn – This is used as a back-up for the power horn on the start boat, or can be given to the RHIB if it needs to give signals to the fleet during a race.

Course Setting

There a couple of ways of setting courses. This description uses the start boat to do most of the work.

The start boat usually heads out towards Green Point and then motors away from the shore line and into the direction the wind is coming from. The distance off-shore should take account of the course size to be set and ensure the course will be a sufficient distance away from beach areas and not interfere with racing courses set by Sandringham Yacht Club.

Before the RO sets the windward mark he/she will determine the wind angle (to the nearest 5 **degrees** (°) and the wind strength (in **knots**). Using a "target time" table, the length of the windward leg can be determined.

A yellow buoy is set and is "pinged" as a **waypoint** using a GPS device. Using this device the start boat will motor downwind with a **back bearing** equal to the wind angle and stop when the intended windward leg length has been reached (measured in **nautical miles**). At this position the RO should check the wind angle and wind strength. The wind angle should be within +/- 5° of the windward mark reading. A yellow buoy is then dropped in this position and becomes the leeward mark.

The start boat can then manoeuvre downwind of the leeward mark and anchor at least 50 metres away from it.

Triangular Course

The RO then instructs the RHIB to use a GPS and ping the windward mark. The RHIB then sets off with a back bearing equal to the wind angle plus 45°. It motors a distance of 0.7 times the distance of the windward leg. (E.g. if the windward leg length is 0.6 Nm then the reach leg is 0.7 x 0.6 = 0.42 Nm long). When the intended position is reached, the RHIB drops in a yellow buoy which becomes the wing mark. The RHIB then motors down to the start boat to help set the start line.

Windward & Return Course

Once the leeward mark is set, the RHIB sets another yellow buoy at 90° to the wind angle to form a 'gate'. The width of the gate should be 7 times the length of the longest boat. So if the longest boat is 4.2 metres, the gate gap should be 7 X 4.2 = 30 metres.

Start Line

The start line is set off the port side of the anchored start boat. The length of the line is determined by the formula of: number of boats starting x length of the longest boats x 1.5. HSC usually sets a starting line of between 30 metres and 50 metres. The RO will instruct the RHIB to 'stream' a small orange buoy below the course and, holding the anchor, motor slowly up wind. Using a compass the RO will sight at an angle equal to the wind angle minus 90°. The RHIB will be instructed to drop the buoy anchor when the orange 'pin' buoy is at the correct angle. An orange flag can then be raised on the port side of the start boat with one sound signal.

The RHIB will station itself beyond the 'pin' end of the starting line until the start of the race. Looking along the start line, crew members can assist with identifying any boat(s) over the line when the start signal sounds.

Starting Procedure

HSC uses the usual 5 minute count down starting cycle as follows:

1. The first signal in the starting sequence is the WARNING SIGNAL. This should be displayed 5 minutes before the start time stated in the Sailing Instructions. This is accompanied with one sound signal. The HSC WARNING SIGNAL flag is the club burgee.
2. One minute later, the PREPARATORY SIGNAL is displayed. This is the 'P' (Blue Peter) flag and is accompanied by a sound signal.
3. Three minutes later (i.e. one minute before the start), the PREPARATORY SIGNAL is lowered and is accompanied by one long sound signal.
4. One minute later – i.e. the start – the WARNING SIGNAL is lowered and is accompanied by a sound signal.

If one or more boats are over the line before the start signal, and the boats can be identified, the INDIVIDUAL RECALL signal is displayed (flag 'X'). This must be displayed within 4 seconds of the start and be accompanied by one sound signal. Boats over the line must return to the start and cross the start line again in the correct direction.

If several boats are over the line before the start signal, and the boats cannot be identified, the GENERAL RECALL signal is displayed (flag '1st Substitute'). This is accompanied with two sound signals. All boats must return to the starting area and commence a new start sequence.

Prior to the start of a race, the POSTPONEMENT SIGNAL can be displayed accompanied with two sound signals. If the starting sequence has started, all the other flags are lowered. When the POSTPONEMENT SIGNAL is lowered it is accompanied by one sound signal. The starting sequence can begin over again.

Managing a Race and Finishing

The start boat must record the actual start time on a Race Finish Sheet. Details of the course and weather conditions (wind direction, wind speed and wave conditions) should be recorded on this sheet.

The actual number of starters should be checked against the Sign On sheet. All race officers should track the progress of competitors during the race.

The role of the RHIB is to follow the fleet around the course keeping an eye on any stragglers. The RHIB should be directed to stand by any boat that capsizes and render assistance if asked for by the crew. The RHIB should also approach any boat attempting to return to shore and ascertain if they are retiring from the race. The start boat should be informed by radio of that boat's intentions and record their decision on the Race Finish Sheet.

Abandonment

If weather conditions make it dangerous to continue to race, or if the wind drops to drifting conditions for a prolonged period the race can be abandoned. The 'N' flag is displayed with three sound signals. This signal can only be used after the start and it is useful if the RHIB also displays the signal across the fleet.

Changing the Next Leg Bearing of the Course

If there is a significant change in wind direction (≥ 20°) before the next windward leg, the windward buoy should be moved and competitors advised at the leeward mark. The flag 'C' is displayed with a repetitive sound signal. This is displayed with a red rectangle when the new mark position is to port of the original, or a green triangle when the new mark position is to starboard of the original.

Shorten Course

The flag 'S' and two sound signals indicates that the race is being shortened and boats should proceed to the finish line. The race can be finished at a course mark if the 'S' flag is displayed over a blue flag and the results and times recorded in the RHIB. If the 'S' flag is displayed over a blue flag at the start boat, competitors should proceed through the finish line.

The Blue Flag

The blue flag is displayed on the side of the start boat and indicates one end of the finish line. The other end is either the orange start buoy or a white & black chequered buoy off the starboard side of the start boat. The blue flag is displayed without a sound signal when the leading boat commences the last leg of race.

Finishing

Results of a race are recorded on the Race Finish Sheet. As each boat cross the finish line, one race official calls the sail number and another records the number and time. It is important to tally the number of finishers and non-finishers with the number of starters.

Back on Shore

Finally, the RO needs to check the Sign On sheet in the race briefing area to ensure all competitors have signed off and safely returned to shore.