

Heat Management System 2014

Race committees are recommended to read the rules of this system with the SIs and in conjunction with the HMS Advice Notes that are part of this document.

1 GENERAL PROCEDURES APPLYING TO ANY MULTI-HEAT RACE

1.1 Numbers and Size of Heats

- (a) The number of boats scheduled to sail in a heat shall not exceed 20, except in Race 1 for an entry of 81-84 when 21 boats may be scheduled.
- (b) When sufficient numbers of boats withdraw from, or return to the event, or circumstances change during an event, the Race Committee may alter the size of any heat and/or the number of heats in a race according to the schedules. The Race Committee may also change between schedules 'B' and 'C' for the same reasons. This shall be announced, confirmed in writing, by posting on the Fleet Board section of the Official Notice Board, before the start of the next race.

1.2 Order of Heats

Heats in each race shall be sailed in reverse alphabetical order.

1.3 Withdrawn Boats

- (a) A boat will be withdrawn from those scheduled to sail by the race committee, after being recorded as DNC in the lowest heat.
- (b) A withdrawn boat will be recorded as DNC.

1.4 Scoring

The RRS A4 Low Point system, as modified by HMS 2.4 or 3.4 will apply.

1.5 Breaking of Ties

- (a) When a tie needs to be broken to establish the order of *finishing* places between two or more boats in promotion positions at the *finishing* line, or recorded equally at the end of a heat or at the end of the event, it shall be decided in favour of the boat with the most first places and when the tie remains, the most second places and so on. When the tie still remains it shall be decided in favour of the boat with the best score in the last race in which there was no tie and should the tie still remain, by the tossing of a coin or the drawing of lots. This changes RRS A8, which will not apply.
- (b) When boats are tied at the finishing line, including ties which may remain after HMS 1.5 (a) has established boats to be promoted, RRS A7 will apply to determine their score.
- (c) When a tie between two or more boats is to be broken in Race 2 or following races, Race 1 scores shall be excluded.

1.6 Excluded scores (discards)

When the total score is calculated for each boat, her worst scores will be excluded as follows:

After 4 races have been completed, 1 discard.

After 8 races have been completed, 2 discards.

After 16 races have been completed, 3 discards and so on for every further 8 races completed.

1.7 Protests

- (a) Protests involving the place of a boat that may be promoted or requests for redress, which may result in a boat being promoted due to its place being adjusted as in HMS 1.8(b), shall be heard before the start of the next heat.
- (b) Protests or requests for redress involving boats which may be placed in a lower heat by the division of the fleet for the next race shall be heard before that division.

1.8 Redress

- (a) Decisions on redress shall be made in accordance with RRS 64.2.
- (b) In all heats the finishing place of a boat may only be adjusted if the boat was on the last leg of the course when the incident occurred.
- (c) Should it be necessary to calculate a boat's average score, her Race 1 score shall be excluded.
- (d) Except where HMS 1.8(b) applies in Race 1, requests for redress under RRS E6.6 (e) and (f) may only be made in Race 2 or following races.

2 PROCEDURES THAT APPLY TO RACE 1

2.1 Division of the Fleet

The event shall start with one race in which the fleet (all boats in the event), is divided into heats of approximately equal sizes. Each heat shall be seeded to contain boats of mixed ability. Where the ability of some boats is unknown their selection shall be at random.

2.2 Time Out Limit

As an exception to the Sailing Instructions, for Race 1 only there shall be no Time Out Limit. All boats shall be allowed to *finish*, provided that they had started before the leading boat in their heat had *finished* in accordance with RRS 28.

2.3 Order of Finishing Places for Race 1

Each heat shall be treated as a separate race. *Finishing* places shall be changed so that boats recorded as DNF, RET, OCS, DNS, DNC, BFD, DSQ, DNE or DGM shall be placed in this order at the bottom of the heat. The order of finishing places of boats shall comply with RRS A6.

2.4 Scoring of Race 1

Scoring shall be as RRS A4 Low Point Scoring System except RRS A4.2 is replaced by: "All other boats shall be scored one point more than the number of boats scheduled to sail in the largest heat of Race 1."

3 PROCEDURES THAT APPLY AFTER RACE 1

3.1 Division of the Fleet for Race 2

The finishing places in the Race 1 heats are used to create an order of finishing places for the fleet with all the heat winners followed by all the second placed boats and so on. This order of finishing places is divided into heats with the number of boats in each heat as shown in SCHEDULE 'A' (Schedule for Race 2 only).

3.2 Promotion for Race 2

Except in Heat A, the four highest placed boats in each heat shall sail in the next heat.

3.3 Order of Finishing Places for the next race

The race *finishing* order from the first boat in Heat A to the last boat in the lowest heat shall be modified as follows:

- (a) The *finishing* place of a promoted boat in any lower heat of the same race shall be ignored.
- (b) Boats recorded as DNF, RET, OCS, DNS, DNC, BFD, DSQ, DNE or DGM shall be put in this order in the lowest places in the heat in which they were scheduled to sail.
- (c) All other boats shall then be put in consecutive order within the heat in which they were scheduled to sail, according to their *finishing* places.
- (d) The finishing places of boats shall comply with RRS A6 within each heat only.

3.4 Scoring of Race 2 and Following Races

Scoring shall be from the Order of Finishing Places for each race using the RRS A4 Low Point Scoring System except RRS A4.2 is replaced by:

- (a) Boats recorded as DNF, RET, OCS, DNS or DNC shall score one more point than the last boat in their heat would have scored if all boats scheduled to sail in the heat had *finished* correctly.
- (b) DNC boats removed from those scheduled to sail and boats recorded as BFD, DSQ, DNE or DGM shall score one more point than the last boat in the lowest heat would have scored if all the boats competing in the event had *finished* correctly.
- (c) A boat that retires during a protest hearing after the hearing is found to be valid, shall be recorded as DSQ and scored as in HMS 3.4(b).

3.5 Division of the Fleet for Race 3 and Following Races

Boats shall be divided into heats according to the Order of Finishing Places in the previous race, with the number of boats in each heat as shown in either SCHEDULE 'B' or SCHEDULE 'C' (Schedules for Race 3 and Following Races).

3.6 Promotion for Race 3 and Following Races

Except in Heat A, the four highest placed boats in each heat shall sail in the next heat if SCHEDULE 'B' is used or the six highest placed boats in each heat shall sail in the next heat if SCHEDULE 'C' is used.

SCHEDULE 'A' ~ 4 BOAT PROMOTION

(SCHEDULE for RACE 2 ONLY)

Note: Schedule 'A' is ALWAYS used for Race 2 regardless of whether Schedule 'B' or 'C' is to be used for Race 3 and Following Races.

Number Of Boats	2 Heats		3 Heats			4 Heats				5 Heats					Number Of Boats
	A	B	A	B	C	A	B	C	D	A	B	C	D	E	
12	4	8				16	16	16	19	15	15	10	10	17	67
13	4	9				16	16	16	20	15	15	10	10	18	68
14	4	10								15	15	10	10	19	69
15	6	9								15	15	10	10	20	70
16	6	10								15	15	15	10	16	71
17	6	11								15	15	15	10	17	72
18	6	12								15	15	15	10	18	73
19	8	11								15	15	15	10	19	74
20	8	12								15	15	15	10	20	75
21	8	13								15	15	15	15	16	76
22	8	14	6	6	10					15	15	15	15	17	77
23	10	13	6	6	11					15	15	15	15	18	78
24	10	14	6	6	12					15	15	15	15	19	79
25	10	15	9	6	10					15	15	15	15	20	80
26	10	16	9	6	11					16	16	16	16	17	81*
27	12	15	9	6	12					16	16	16	16	18	82*
28	12	16	9	9	10	8	4	4	12	16	16	16	16	19	83*
29	12	17	9	9	11	8	8	4	9	16	16	16	16	20	84*
30	12	18	9	9	12	8	8	4	10						
31	14	17	9	9	13	8	8	4	11						
32	14	18	9	9	14	8	8	4	12						
33	14	19	9	9	15	8	8	8	9						
34	14	20	12	9	13	8	8	8	10	5	5	5	5	14	34
35	16	19	12	9	14	8	8	8	11	5	5	5	5	15	35
36	16	20	12	9	15	8	8	8	12	10	5	5	5	11	36
37			12	12	13	8	8	8	13	10	5	5	5	12	37
38			12	12	14	8	8	8	14	10	5	5	5	13	38
39			12	12	15	8	8	8	15	10	5	5	5	14	39
40			12	12	16	8	8	8	16	10	5	5	5	15	40
41			12	12	17	12	8	8	13	10	10	5	5	11	41
42			12	12	18	12	8	8	14	10	10	5	5	12	42
43			15	12	16	12	8	8	15	10	10	5	5	13	43
44			15	12	17	12	8	8	16	10	10	5	5	14	44
45			15	12	18	12	12	8	13	10	10	5	5	15	45
46			15	12	16	12	12	8	14	10	10	10	5	11	46
47			15	12	17	12	12	8	15	10	10	10	5	12	47
48			15	12	18	12	12	8	16	10	10	10	5	13	48
49			15	15	19	12	12	12	13	10	10	10	5	14	49
50			15	15	20	12	12	12	14	10	10	10	5	15	50
51						12	12	12	15	10	10	10	10	11	51
52						12	12	12	16	10	10	10	10	12	52
53						12	12	12	17	10	10	10	10	13	53
54						12	12	12	18	10	10	10	10	14	54
55						12	12	12	19	10	10	10	10	15	55
56						12	12	12	20	10	10	10	10	16	56
57						16	12	12	17	10	10	10	10	17	57
58						16	12	12	18	10	10	10	10	18	58
59						16	12	12	19	10	10	10	10	19	59
60						16	12	12	20	10	10	10	10	20	60
61						16	16	12	17	15	10	10	10	16	61
62						16	16	12	18	15	10	10	10	17	62
63						16	16	12	19	15	10	10	10	18	63
64						16	16	12	20	15	10	10	10	19	64
65						16	16	16	17	15	10	10	10	20	65
66						16	16	16	18	15	15	10	10	16	66

For heats other than the lowest, the number of boats 'scheduled to sail' shall include promoted boats from lower heats, in addition to the numbers given in this schedule. Please note that the pattern of fleet division for 81 to 84 boats is non-standard and shall not be extended; see HMS Advice Notes.

Now go to SCHEDULE 'B' or 'C' for RACE 3 and FOLLOWING RACES!

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SCHEDULE 'B' ~ 4 BOAT PROMOTION

(SCHEDULE for RACE 3 and FOLLOWING RACES)

Number Of Boats	2 Heats A B		3 Heats A B C			4 Heats A B C D				5 Heats A B C D E					Number Of Boats
12	4	8				16	16	16	19	13	13	13	12	16	67
13	5	8				16	16	16	20	13	13	13	13	16	68
14	5	9								13	13	13	13	17	69
15	6	9								14	13	13	13	17	70
16	6	10								14	14	13	13	17	71
17	7	10								14	14	14	13	17	72
18	7	11								14	14	14	14	17	73
19	8	11								14	14	14	14	18	74
20	8	12								15	14	14	14	18	75
21	9	12								15	15	14	14	18	76
22	9	13	6	6	10					15	15	15	14	18	77
23	10	13	7	6	10					15	15	15	15	18	78
24	10	14	7	7	10					15	15	15	15	19	79
25	11	14	7	7	11					16	15	15	15	19	80
26	11	15	8	7	11					16	16	15	15	19	81
27	12	15	8	8	11					16	16	16	15	19	82
28	12	16	8	8	12	6	6	6	10	16	16	16	16	19	83
29	13	16	9	8	12	7	6	6	10	16	16	16	16	20	84
30	13	17	9	9	12	7	7	6	10						
31	14	17	9	9	13	7	7	7	10						
32	14	18	10	9	13	7	7	7	11						
33	15	18	10	10	13	8	7	7	11						
34	15	19	10	10	14	8	8	7	11	6	6	6	6	10	34
35	16	19	11	10	14	8	8	8	11	7	6	6	6	10	35
36	16	20	11	11	14	8	8	8	12	7	7	6	6	10	36
37			11	11	15	9	8	8	12	7	7	7	6	10	37
38			12	11	15	9	9	8	12	7	7	7	7	10	38
39			12	12	15	9	9	9	12	7	7	7	7	11	39
40			12	12	16	9	9	9	13	8	7	7	7	11	40
41			13	12	16	10	9	9	13	8	8	7	7	11	41
42			13	13	16	10	10	9	13	8	8	8	7	11	42
43			13	13	17	10	10	10	13	8	8	8	8	11	43
44			14	13	17	10	10	10	14	8	8	8	8	12	44
45			14	14	17	11	10	10	14	9	8	8	8	12	45
46			14	14	18	11	11	10	14	9	9	8	8	12	46
47			15	14	18	11	11	11	14	9	9	9	8	12	47
48			15	15	18	11	11	11	15	9	9	9	9	12	48
49			15	15	19	12	11	11	15	9	9	9	9	13	49
50			16	15	19	12	12	11	15	10	9	9	9	13	50
51			16	16	19	12	12	12	15	10	10	9	9	13	51
52			16	16	20	12	12	12	16	10	10	10	9	13	52
53						13	12	12	16	10	10	10	10	13	53
54						13	13	12	16	10	10	10	10	14	54
55						13	13	13	16	11	10	10	10	14	55
56						13	13	13	17	11	11	10	10	14	56
57						14	13	13	17	11	11	11	10	14	57
58						14	14	13	17	11	11	11	11	14	58
59						14	14	14	17	11	11	11	11	15	59
60						14	14	14	18	12	11	11	11	15	60
61						15	14	14	18	12	12	11	11	15	61
62						15	15	14	18	12	12	12	11	15	62
63						15	15	15	18	12	12	12	12	15	63
64						15	15	15	19	12	12	12	12	16	64
65						16	15	15	19	13	12	12	12	16	65
66						16	16	15	19	13	13	12	12	16	66

For heats other than the lowest, the number of boats 'scheduled to sail' shall include promoted boats from the lower heats, in addition to the numbers given in this schedule. The number of boats 'scheduled to sail' in the lowest heat may vary from the numbers scheduled, to allow for withdrawn boats or the return of withdrawn boats.

SCHEDULE 'C' ~ 6 BOAT PROMOTION

(SCHEDULE for RACE 3 and FOLLOWING RACES)

Number Of Boats	2 Heats A B		3 Heats A B C			4 Heats A B C D				5 Heats A B C D E					Number Of Boats
24	9	15													24
25	10	15													25
26	10	16													26
27	11	16													27
28	11	17													28
29	12	17													29
30	12	18													30
31	13	18													31
32	13	19													32
33	14	19	9	9	15										33
34	14	20	10	9	15										34
35			10	10	15										35
36			10	10	16										36
37			11	10	16										37
38			11	11	16										38
39			11	11	17										39
40			12	11	17										40
41			12	12	17										41
42			12	12	18	9	9	9	15						42
43			13	12	18	10	9	9	15						43
44			13	13	18	10	10	9	15						44
45			13	13	19	10	10	10	15						45
46			14	13	19	10	10	10	16						46
47			14	14	19	11	10	10	16						47
48			14	14	20	11	11	10	16						48
49						11	11	11	16						49
50						11	11	11	17						50
51						12	11	11	17	9	9	9	9	15	51
52						12	12	11	17	10	9	9	9	15	52
53						12	12	12	17	10	10	9	9	15	53
54						12	12	12	18	10	10	10	9	15	54
55						13	12	12	18	10	10	10	10	15	55
56						13	13	12	18	10	10	10	10	16	56
57						13	13	13	18	11	10	10	10	16	57
58						13	13	13	19	11	11	10	10	16	58
59						14	13	13	19	11	11	11	10	16	59
60						14	14	13	19	11	11	11	11	16	60
61						14	14	14	19	11	11	11	11	17	61
62						14	14	14	20	12	11	11	11	17	62
63										12	12	11	11	17	63
64										12	12	12	11	17	64
65										12	12	12	12	17	65
66										12	12	12	12	18	66
67										13	12	12	12	18	67
68										13	13	12	12	18	68
69										13	13	13	12	18	69
70										13	13	13	13	18	70
71										13	13	13	13	19	71
72										14	13	13	13	19	72
73										14	14	13	13	19	73
74										14	14	14	13	19	74
75										14	14	14	14	19	75
76										14	14	14	14	20	76

For heats other than the lowest, the number of boats 'scheduled to sail' shall include promoted boats from the lower heats, in addition to the numbers given in this schedule. The **minimum heat size 'scheduled to sail' for 6 boat promotion is 15** to ensure at least 3 of each heat are neither promoted nor re-scheduled to a lower heat after the division at the end of each race. However, the number of boats 'scheduled to sail' in the lowest heat may vary from the numbers scheduled, to allow for withdrawn boats or the return of withdrawn boats.

Advice to Competitors and Race Committee

Introduction

Originally conceived by Peter Stollery, this heat system produces a close simulation of a fleet race, in which all boats sail together. In this radio racing system the fleet is divided into no more than 5 heats. In the first race, the heats are seeded to contain boats of mixed ability. The results allow the formation of heats with boats of similar ability, which provides good quality racing. In the following races, starting at the bottom heat, the four leading boats of each heat are promoted to and immediately sail in the next highest heat. This is repeated until every heat has sailed, allowing every boat, from whichever heat she started, the opportunity to improve her overall position and the chance to win every race. Normally, when the Race Committee divides the fleet at the end of a race based on the Order of Finishing Places, boats that are not promoted stay in their heat and the bottom four go down to the next lowest heat. However, there are exceptions to this, for example between Races 2 and 3 and where the fleet numbers reduce.

General advice

- **Read HMS carefully** before you start - most queries can be avoided. Don't attempt to learn all of HMS by heart - it's much better to just remember the main headings. Always have several copies available & one on the finishing line.
- **Follow the procedures exactly** - they are designed for the smooth running of your event.
- **HMS** is often loosely described as "four up at the end of each **heat** and four down at the end of each **race**". You must **not** think of HMS in this way! "Four up" at the end of each heat may be right, but at the end of each race the fleet is divided using the RACE SCHEDULES. This means that in some circumstances (e.g. between Race 2 and Race 3 for some fleet sizes and when several boats withdraw from an event causing the fleet to be rescheduled) the number of boats which 'go down' after the division is NOT ALWAYS FOUR.
- **Fleet** is the term used to mean 'all of the boats entered' and a **heat** is a division of that fleet as RRS Appendix E1.2(c)
- **The fleet or 'ticket' board** is used to display each boat in the various heats and to track the progress of each race. It is essential that **competitors pay attention to this Fleet Board** after the division of the fleet at the beginning of every race.

When to choose Schedule 'B' or Schedule 'C'

The decision is completely up to the Race Committee although Schedule 'C' (6 boat promotion) can ONLY be used for entries between 24 and 76 due to the increased number of boats moving between heats. Schedule 'B' (4 boat promotion) remains the ONLY option for smaller events of 23 boats or less and may be more appropriate in some circumstances. For example, in two heat races or where the Race Committee team is small, 4 boat promotion may be more appropriate to provide the necessary observers. It may also be desirable in some circumstances to use Schedule 'B' to keep the number of heats to a minimum: for example, with an entry of 35 or 36. However, the Race Committee are permitted to change between Schedule 'B' and Schedule 'C' if circumstances change during an event. Any such announcement may be made at any time between races.

IMPORTANT – These Advice Notes presume that Schedule 'B' is used for Race 3 and following races (i.e. 4 boats promoted). If Schedule 'C' is used for Race 3 and following races (i.e. 6 boats promoted) all the same principles and advice notes apply, including Time Out Limits etc, but with one simple difference; that for Race 3 and following races six boats are promoted between heats, not four. Use of Schedule 'C' DOES NOT CHANGE the use of Schedule 'A', as FOUR BOATS ARE ALWAYS promoted during Race 2 regardless of whether Schedule 'B' or 'C' is used for Race 3 and following races.

Heat numbers and number of boats in the heats

RACE 1 - look at the heat numbers in the race schedules to get an idea of the options for the number of heats that could be used. The number of heats in any race shall be as few as possible, taking into account the local conditions and the resources available (size of sailing water, layout of course, visibility from the control area, number of observers, etc). The number of heats that you choose should be the same for Races 1 and 2, unless there are exceptional circumstances with a lot of withdrawn boats etc and in the special case of 81-84 boat entries. In the latter there will be only 4 heats of 20 or 21 boats in Race 1, which divide into Race 2 heats A-D of 16 with the remainder in Heat E. See 'special' table below.

Being in A Heat in Race 1, does not imply any higher status than being in E Heat as each heat shall contain a mixture of skipper ability. Seeding of skipper ability is **ESSENTIAL**. Make an effort to find any available information about skipper ability like the results of previous similar events, DM rankings, the seeding of skippers on entry forms etc and envisage an order of likely results and divide into Race 1 heats. Where skipper ability is unknown selection at random can be done in several ways. If in doubt one method for selecting the order of the boats remaining after the seeding is recommended. The remaining unseeded boats can be given an order by sorting alphabetically according to their national letters and within the national letters according to the ascending sail numbers. This order will be sorted into the heats in the order A,B,C,D,E,E,D,C,B,A and so on.

RACE 2 - In the RACE SCHEDULES, the numbers given in the higher heats (A, B, etc) will eventually have the promoted boats from the lower heats added to them to make up the number "scheduled to sail". It is most important that the numbers of boats in **SCHEDULE 'A' (SCHEDULE for RACE 2 ONLY)** are followed exactly. In the tables below the bold horizontal lines divide the order of finishing places for Race 1, with A1 being the first boat in Heat A, B1 being the first boat in Heat B etc. The left-hand table is an example of the **'normal'** division of the fleet up to 80 boats, ie with all the heats divided in a similar way. In this case, they contain 3 boats from each Race 1 heat. The right hand table shows the **'special'** case of entry numbers of 81- 84 with Race 1 results are divided into 5 heats with shows the worst case of 84 boats shown. If there are fewer than 84 boats then, for 83 boats omit D21 from Heat E; for 82 boats omit D21 and C21; for 81 boats omit D21, C21 and B21.

Division for Race 2 with 80 boats	Race 1 'order of finishing places' : A1 is first boat in Heat A and so on				
Race 2 Heat A	A1	B1	C1	D1	E1
	A2	B2	C2	D2	E2
	A3	B3	C3	D3	E3
Race 2 Heat B	A4	B4	C4	D4	E4
	A5	B5	C5	D5	E5
	A6	B6	C6	D6	E6
Race 2 Heat C	A7	B7	C7	D7	E7
	A8	B8	C8	D8	E8
	A9	B9	C9	D9	E9
Race 2 Heat D	A10	B10	C10	D10	E10
	A11	B11	C11	D11	E11
	A12	B12	C12	D12	E12
Race 2 Heat E	A13	B13	C13	D13	E13
	A14	B14	C14	D14	E14
	A15	B15	C15	D15	E15
	A16	B16	C16	D16	E16
	A17	B17	C17	D17	E17

Division for Race 2 with 84 boats	Race 1 'order of finishing places' : NOTE: ONLY 4 HEATS IN RACE 1			
Race 2 Heat A	A1	B1	C1	D1
	A2	B2	C2	D2
	A3	B3	C3	D3
	A4	B4	C4	D4
Race 2 heat B	A5	B5	C5	D5
	A6	B6	C6	D6
	A7	B7	C7	D7
	A8	B8	C8	D8
Race 2 Heat C	A9	B9	C9	D9
	A10	B10	C10	D10
	A11	B11	C11	D11
	A12	B12	C12	D12
Race 2 Heat D	A13	B13	C13	D13
	A14	B14	C14	D14
	A15	B15	C15	D15
	A16	B16	C16	D16
Race 2 Heat E	A17	B17	C17	D17
	A18	B18	C18	D18
	A19	B19	C19	D19
	A20	B20	C20	D20
	A21	B21	C21	D21

RACE 3 and following races - After Race 2, SCHEDULES 'B' and 'C' for **RACE 3 and FOLLOWING RACES** are different because they makes the numbers in each heat as equal as possible, which is one of the objectives of **HMS**.
After you have used SCHEDULE 'A' (for RACE 2 ONLY) please turn to either SCHEDULE 'B' or SCHEDULE 'C' so that you don't use SCHEDULE 'A' again!!!

At the start of a heat ~ Advice for the race committee and line judges

As the boats manoeuvre before the start, check that they are all there. Record any that are not as DNC. At the first windward mark check the boats again. Any missing may be DNS. Record any DNC, DNS or OCS on the Heat Record Sheet.

At the finish of a heat ~ Advice for the race committee and line judges

At the finish you should record the sail number every time a boat crosses the line. It may do so more than once; after taking a penalty for example. Sort out later, with advice from observers/umpires, which is the proper finish. When the first boat in the heat *finishes*, **record the time of finishing**. Initially other boats have 5 minutes in which to *finish*.

At the finish of a heat – Time Out Limit ~ Advice for line judges/observers/umpires

In some heats, most often in light airs, several boats may not *finish* within the 5 minute Time Out Limit. You should be able to see this coming and have plenty of time to prepare and discuss the progress of the race with observers/umpires etc. In particular it is a good idea to take an order of the last 6 boats at the final mark or against some other marker as an order to refer to if there is any doubt about placing the last 4 at the end of the Time Out Limit. Note that in Race 1 there is no Time Out Limit.

If the 5 minute Time Out Limit runs out and there are still boats *racing*, check with the observers and if you haven't already done so, make a note of those still *racing* that are OCS or did not comply with the 'round the ends' rule, or have not sailed the correct course as rule 28.

Of the remainder, if there are 4 boats or fewer still racing on the water, immediately record their places on the water in conjunction with the umpires/observers as if they had *finished* at that point.

If there are more than 4 still racing on the water, the Time Out Limit is extended until only 4 boats remain *racing* on the water.

At that point record their places on the water as above.

All other boats not accounted for may be as noted below and recorded as such:

- DNC – did not come to the starting area
- OCS – on the course side at the starting signal
- DNS, that did not start other than OCS and DNC; you probably have those noted at the first windward mark,
- BFD – disqualified under black flag rule
- DNF - did not finish, those that have not completed the course properly as RRS 28; observers can help to identify them,
- RET - retired after equipment failure, receiving help after being ‘disabled’, breaking a rule that caused damage etc or retired after *finishing*,
- DSQ - disqualified (on the water by umpire, if the heat is umpired) or after protest hearing.

Please make sure that all the correct abbreviations in A11 are used. The list above does not include the lesser used abbreviations. The definitions are also shown on the Heat Record Sheet.

At the end of a heat

After checking any changes to the finishing order, by OCS, RET etc **move boats up on the fleet/ticket board** from the heat below to determine boats for the next heat. **There is no need to use a computer at this stage.**

Arrange the ‘tickets’ in the correct finishing order after each heat has finished. This can save a lot of time when rearrangement is necessary due to boats dropping out or a DSQ, as confirmation with the paperwork can then be handled very quickly indeed. After the division of the fleet for the next race the information about the boats in each heat can be marked up by hand directly from the Fleet Board onto the Heat Record Sheets.

Withdrawn boats

The Race Committee will automatically withdraw boats from those scheduled to sail either, when in the bottom heat they have been DNC once or, when they have reached the bottom heat having been DNC in the heat above. Once withdrawn a boat **must** seek permission to return to racing. When boats are withdrawn it is not necessary to re-schedule to a different fleet size if this is likely to be or is fluctuating, until there is a significant change to the numbers in the lowest heat. The score for withdrawn boats is total entry + 1.

Scoring ~ An example with a 16 boat entry and manual results sheet

The Heat Record Sheet, on the last page of this advice note, has spaces for *finishing* times of the heat, columns for the boats ‘scheduled to sail’, the *finishing* order, comments and a full description of the RRS A11 abbreviations that apply. The example, which is applicable to all heats except in Race 1, shows the continuity of the sequence of points for those who have *finished* correctly and includes those who may have been recorded DNF etc. Note that boats placed in lower heats shall be scored as if boats recorded as DNF, RET, OCS, DNS, DNC, BFD, DSQ, DNE and DGM in higher heats had *finished* correctly. The boat having Redress given (RDG) in this case - ‘average points at the end of the event’, is clearly marked - she would have scored 7 points otherwise. The scores can be simply transferred to the computer or master score sheet. If a manual score sheet is used, listing the boats in Sail Number Order can speed up the process.

Heat A finishing order		
Order	Comment	(score)
A1		1
A2		2
A3		3
A4	DSQ	17
A5		4
A6		5
A7		6
A8	Redress	RDG
A9	DNF	11
A10	DNC	11

Heat B finishing order		
Order	Comment	(score)
B1 -	to Heat A	
B2 -	to Heat A	
B3 -	to Heat A	
B4 -	to Heat A	
B5		11
B6		12
B7	DSQ	17
B8		13
B9		14
B10		15

The example continues with the **ORDER OF FINISHING PLACES** for boats “scheduled to sail” in the **next race**.
Heat B - A8, A9, A10, B5, B6, B8, B9, B10, A4, B7 **Heat A** - A1, A2, A3, A5, A6, A7

Scoring after redress

If ‘average points for the event’ are awarded for redress in a heat a score cannot be properly awarded until the end of the event. RDG should be placed in the appropriate "box" for that boat’s score. Only the score for the boat given redress is adjusted. The scores of the adjacent boats and the boats below are not altered.