

IQFOIL CLASS RACE MANAGEMENT GUIDELINE

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This document is to help RM team to run the races. It should be used together with Class Racing Policies

1. WIND SPEED PER DISCIPLINE

1.1. The wind speed per discipline is as follows:

Discipline	Wind speed (kts)
Slalom sprint (heats)	5-15
Course racing (fleets)	9 and more
Marathon (fleets)	10-25

2. FLEET SIZE

2.1. The fleet sizes and number of the groups depending of the entry are as follows:

Entries	Fleet/Groups
< 60	1
60-80	1 or 2
80-120	2
120-160	2 or 3
>160	3

- 2.2. Slalom sprint each fleet/group to be divided to heats with the maximum of 24 boards per heat (up to 20 ideal).
- 2.3. Marathon in case of split fleet:
 - 2.3.1. If scheduled in Qualifying series will be sailed as one single fleet (all groups together).
 - 2.3.2. If scheduled in Final series will be sailed in the groups.
 - 2.3.3. Women may start separately depending on the fleet/group size and will start after the men.

3. TARGET TIMES

3.1. The target times are as follows:

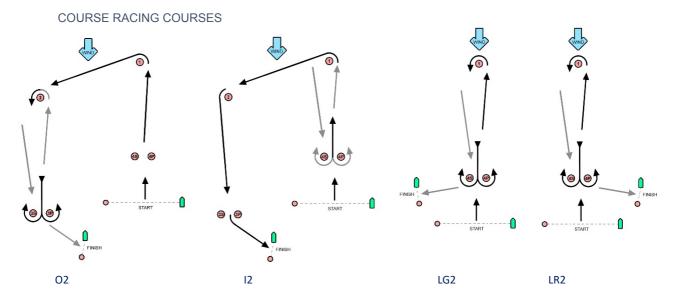
Opening series	Target Time	Time Limit	Finish Window
Course Racing	16	21	5
Sprint Slalom	4-5	6	3
Marathon	60	90	30
Medal Series	Target Time	Time Limit	Finish Window
MR1-MR2	6	8	4
MR3	4-5	6	3



4. COURSES

4.1. Course Racing

4.1.1.Examples of the courses to be used. The courses may have variations depending on the venue specific. Trapezoid is recommended when more than one fleet is racing.



	Trapezoid	Windward/Leeward	
Mark 1 distance (nm):	0.8 (10-13 kts) 0.9 (13-17kts) 1 (17+)	0.85 (10-13 kts) 0.95 (13-17kts) 1.05 (17+)	
Reach angle/length	80-90°/0.6 - 0.7 nm (90° in <15kts) 100-90°/400 - 500 m		
Start	board number x board length (2.20 m) x 3		
Gate (m)	70 - 80		
Finish (m)	30 - 40		

Note: With above distances women are 1.5-2 minutes slower than men. Alternatively extension top marks of different color for the men can be used when both men and women race in the same time (in that case the windward mark for women should be 0.1 nm lower than windward mark for men). Above distances are for the top athletes - if event is for the newcomers or youth fleets distances should be decreased accordingly.

4.2. Marathon

- 4.2.1. Windward/leeward Course. May have variations depending on shoreline configuration.
 - 4.2.1.1. At least two reaches are recommended prior to the finish line when finishing on a downwind on onshore winds.
 - 4.2.1.2. Cross wind finish after rounding an upwind mark when needed to finish close to the shore on offshore winds.
 - 4.2.1.3. length of reaches 500 meters.
- 4.2.2. Length of the windward leg: 5.00 nm under 13 knots, 6.5 nm for 13-17 knots and 8nm for 17+ knots.
 - 4.2.2.1. If racing in a small area, the windward leg distances should be considered cumulatively if multiple upwinds are done.
- 4.2.3. Start: board number x board length (2.20 m) x 2.5 for the rabbit start.

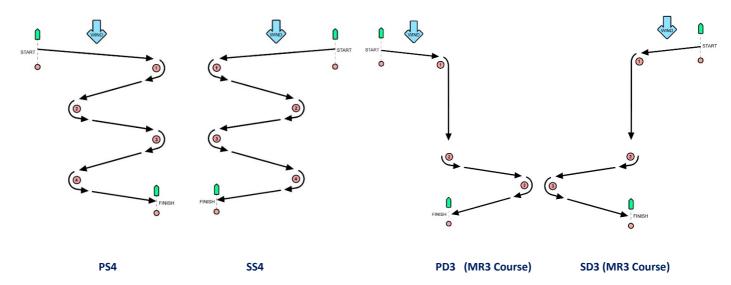
Note: With this distance women are around 10 minutes slower than men



4.3. Slalom Sprint: PS4, SS4, PD3, SD3

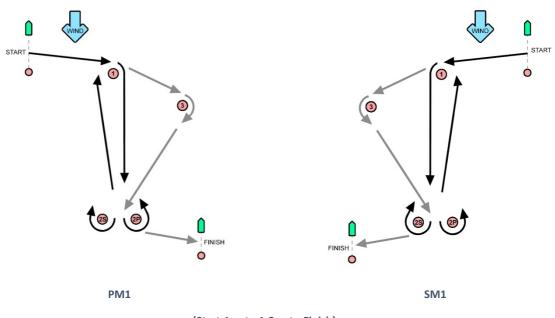
4.3.1. For Slalom Sprint SD3 or PD3 course will have priority.

SLALOM SPRINT AND MR3 COURSES



- 4.4. Medal Race Courses:
- 4.4.1. Slalom Sprint: MR3 (PD3, SD3) under 9 kts.
- 4.4.2. MR1 above 9 kts when close to shore (reaches on second lap for spectators).
- 4.4.3. MR2 above 9 kts when offshore winds far from shore and no spectators (more tactical).

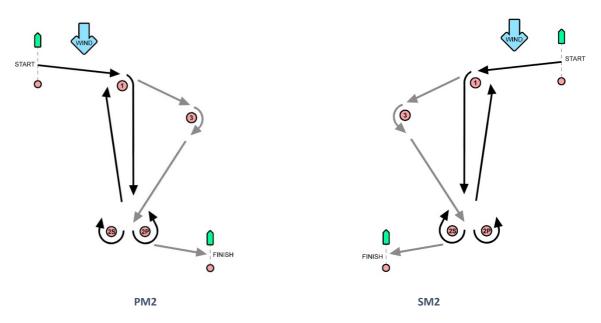
MR1 COURSES



(Start-1-gate-1-3-gate-Finish)



MR2 COURSES



(Start-1-gate-1-gate-Finish, mark3 is cancelled)

	Slalom SS4/PS4	Slalom with downwind leg SD3/PD3 (MR3)	MR1 /MR2 SM1/PS1
M1 distance (m):	600	6	500
First leg angle from the wind (measured from the pin)	90°	90°	90°
Angle between slalom legs/length (m)	25-30°/600	25°/400	
M1-M2 distance (nm)		0.4 - 0.5	0.4 - 0.5
Reaching legs (nm)/angle			0.2–0.4/ 105-110°
Start	No bias or slight pin bias max 5° (more wind less bias) /minimum length 40 m - approximately 8 m per each board up to a maximum of 160 m		
Finish (m)	30-40		

Note: With MR1 and MR2 distances women are around 1 minute slower than men

5. STARTING PROCEDURE

5.1. Starting procedure:

Minutes before Starting signal	Visual signal	Sound signal	Meaning
3	Class flag displayed	One	Warning signal
2	U or Black flag displayed	One	Preparatory signal
1	U or Black flag removed	One long	One-minute signal
0	Class flag removed	One	Starting signal

5.2. An Orange flag will be displayed at least 2 minutes before a warning signal.



5.3. Course racing

- 5.3.1. With smaller fleets U flag may be used as preparatory signal, with big fleets it's highly recommended to begin directly with Black flag.
- 5.3.2.In youth/junior events, in case of big fleets for safety reason it's recommended to force boards to start only on one tack (port or starboard).

Example for SIs:. The race committee may signal that boards shall start on specific tack, by displaying a green flag for starboard tack or a red flag for port tack, before or with the warning signal.

5.4. Marathon

- 5.4.1. Over 80 entries in a fleet a 'rabbit' start is recommended (See CRP 4.7)
- 5.4.2. For the rabbit start the pin is set 135°/140° from the wind direction (wind direction minus 135°/140°)
- 5.4.3. The rabbit vessel is proceeding from the pin end to the race committee vessel in a straight line with a speed between 17-19 kts (depending on the wind strength) with an angle of 45° to the wind (wind direction plus 45°).

5.5. Slalom Sprint/MR

- 5.5.1. Black flag as a preparatory signal to be used.
- 5.5.2. The rule to add to SIs: Add new RRS rule 29.3 as follows:
- 1.1. When, at the warning signal, the course to the first mark is approximately ninety degrees from the true wind then
- (a) When at the starting signal the race committee identifies a board on the course side of the starting line, the race committee shall signal a general recall.
- (b) If the race committee acts under NoR/SI rule 1.1 (a) and the board is identified, she shall be disqualified without a hearing, even if the race is abandoned. The race committee shall hail or display her sail number, and she shall leave the course area immediately. If the race is restarted or re-sailed, she shall not sail in it.
- 5.5.3. Heat number (if applicable) will be displayed before or with the warning signal without sound signal.

6. RACES

- 6.1. A maximum number of races per day is 6 with a maximum of 4 course racing races.
- 6.2. The maximum number of races per day on top of the marathon are 2 (two).
- 6.3. If behind schedule, and in order to complete qualification and final series to move into medal series, the maximum number of course races per day can be increased to 6 or marathon plus 4 races.
- 6.4. A recommended maximum number of sprint slalom races sailed in the same heats is 2 (see CRP 3.4).
- 6.5. When racing back to back the warning to subsequent races should be made as soon as practicable after the previous race finishes. The minimum interval between line closure and the next warning is 3 minutes.
- 6.6. After series of back to back races the rest period ashore should be 15 minutes after the last board came back ashore.

7. Abandoning policy

- 7.1. Abandoning is at discretion of the Class Representative
- 7.2. Race may be abandoned when:



- 7.2.1. Wind speed is below:
 - 7.2.1.1. 5 knots in sprint slalom
 - 7.2.1.2. 7 knots in course racing/marathon/MR1 and boards still have to go upwind
- 7.3. Race should be abandoned when:
 - 7.3.1. All the fleet is not foiling for more than 20 seconds.
 - 7.3.2. In Slalom:
 - 7.3.2.1. At least 5 sailors have to be foiling at the start otherwise the race shall be abandoned/cancelled.
 - 7.3.2.2. At least 5 sailors have to pass mark 1 within the 1st minute (60s) after the start otherwise the race shall be abandoned/cancelled.
 - 7.3.2.3. The reaching mark (mark 1) is considered to be passed when the whole board has crossed over the artificial line parallel to the wind and passing through the centre of the mark.
 - 7.3.2.4. At least 5 sailors have to finish within the time limit (6 minutes) otherwise the race shall be abandoned/cancelled.
 - 7.3.3. In course/marathon: at least 15 sailors have to finish within the time limit (CR 21 minutes, Marathon 90 minutes) otherwise the race shall be abandoned/cancelled.
- 7.4. Any other reason exists which making the race unfair (for example wind shift make impossible to fetch the mark, wind shift causes the fleet to invert etc.) or unsafe.

8. SCORING

- 8.1. A race will be scored as follows (see CRP 6):
 - 8.1.1. A Course racing race will be scored as one race in a Series
 - 8.1.2. A Sprint Slalom race will be scored as one race in a Series
 - 8.1.3. A Marathon race will be scored as two races in a Series
- 8.2. A competitor's series score will be the total of her race scores excluding her worst score(s) as follows:
 - 8.2.1. When racing in a single fleet:

Opening Series Races	Discards	Comments
1-2	0	No discard
3-7	1	One worst score discarded
8-12	2	Two worst scores discarded
13-17	3	Three worst scores discarded
18 or more	4	Four worst scores discarded

8.2.2. When racing in a split fleet:

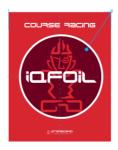
Qualifying Series Races	Discards	Comments
1-2	0	No discard
3-7	1	One worst score discarded in Qualifying Series
8-10	2	Two worst scores discarded in Qualifying Series
Final Series Races	Discards	Comments
1-2	0	No discard
3-7	1	One worst score in Final Series discarded



8 or more	2	Two worst scores in Final Series discarded

8. EQUIPMENT

- 8.1. Minimum number of the boats required to run the races:
 - 8.1.1. Race Committee vessel/starting boat
 - 8.1.2. Pin end boat
 - 8.1.3. Finishing vessel
 - 8.1.4. Windward course racing boat (marks 1 and 2 in case of trap) or slalom marks 1 and 3 boat (follows the gybes on that side of the course)
 - 8.1.5. Leeward/Outer gate course racing boat (marks 3S/3P in case of trap) or slalom marks 2 and 4 boat (follows the gybes on that side of the course)
 - 8.1.6. Leeward/Inner gate course racing boat (marks 4S/4P) only if trapezoid course is in use
 - 8.1.7. Jury boats for the last day for MR 3 ribs with sufficient engine.
- 8.2. Flags
 - 8.2.1. Class flags
 - 8.2.2. ICS flags
 - 8.2.3. All signal flags should be set on sticks to display them precisely
 - 8.2.4. Discipline flags







- 8.3. Buoys
 - 8.3.1. Course marks number depending on course configuration
 - 8.3.2. Laid marks for the finish pin/start pin for reaching starts.
- 8.4. Electronic equipment: VHF radios, GPS, wind speed indicators etc.
- 8.5. Other equipment: compasses, white boards, sound horns etc.
- 8.6. Filming equipment for the starts (both RC and pin end) and finish.