



IRC RACE MANAGEMENT GUIDELINES

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Changes or additions since the last issue of these guidelines are marked in the text with a sidebar.

1. INTRODUCTION

The following document offers guidance to race organisers for racing under IRC Rules. It includes issues a race organiser may wish to consider and gives suitable wording that might be used. In many places, the detail will need tailoring to suit the specific circumstances and Race Committees are of course free to do this. **The RORC Rating Office is happy to provide advice and detail if required. Please contact info@rorcrating.com.**

The full title for IRC is International Rating Certificate, abbreviated to "IRC" for everyday use. At the simplest level, all a Race Committee need say in its sailing instructions is: "The IRC Rules [year], Parts A, B, and C (or D) shall apply". At the end of the race they calculate each boat's corrected time (CT) to the nearest second by multiplying her elapsed time (ET) by her TCC ($CT=ET*TCC$) and publish a set of results with the lowest corrected time winning. In many circumstances, this will suffice.

Up to date lists of all currently rated boats can be found on www.ircrating.org. to check that each entrant holds a current certificates and has provided the correct TCC.

2. NOTICE OF RACE

Before getting to the race course, various IRC rules need consideration and possible attention within the Notice of Race for an event. IRC Rule 11, Changes to Class Rules, confirms which IRC rules may be changed; Note that any changes to IRC Rules must be included in the Notice of Race, not just the Sailing Instructions. Rule 11 also gives IRC Rule Authorities the right to invoke National IRC prescriptions and these too must be referenced in the Notice of Race.

2.1 Certificate Validity – ‘Certificate Year’

With a growing number of boats traveling the world to compete in major races, it becomes increasingly important for race organisers to a) specify which IRC ‘certificate year’ the event is to be held under and b) check certificate validity.

Organisers should explicitly specify which year’s IRC Rules apply. Simply requiring a ‘valid IRC certificate’ is insufficient. Secondly, organisers of international events should check boats’ certificate year and advise boats as appropriate.

The specific issue is that the ‘certificate year’ varies from the northern to the southern hemispheres for the first 5 months of each calendar year. For Australia, New Zealand, South Africa, South America and most Asian countries, the start of the IRC new year is delayed until June to better match the sailing seasons in those countries. Thus, a ‘south’ boat coming north in the early part of the year will need to revalidate her certificate earlier than if she was staying at home. Her certificate remains valid in her home country, but if she has travelled to a northern hemisphere country, it will not be valid there. Similarly, a ‘north’ boat racing in a south country in the first 5 months of a year, will need to produce a certificate for the correct year. The Rating Authority will advise and assist as necessary.

2.2 Advertising

IRC includes two separate but almost identical sections. Part C (Rules 16-24) is IRC with advertising permitted. Part D is IRC with advertising not permitted. It is up to Organising Authorities to specify in their Notices of Race which shall apply. If neither is explicitly specified, Part C shall apply. ie, the default is that advertising is permitted. Parts A and B, the common Parts of the IRC Rule, will always apply. The NOR may therefore state for IRC racing with advertising:

The IRC Rules [YEAR] Parts A, B, and C shall apply.

and without advertising:

The IRC Rules [YEAR] Parts A, B, and D shall apply.

In general Part C is recommended. Organising Authorities should consider carefully before invoking Part D, IRC without advertising. If visiting competitors from further afield than the immediate locality are expected, it is recommended that racing should be held under Part C, IRC with advertising permitted.

Additionally, if it is likely that any "Class" boats will be competing, note should be taken of the advertising rules of those Classes in deciding the appropriate IRC Rules. If for instance one or more Classes have decided to permit advertising, then to run racing under IRC Part D might prevent those boats from competing.

2.3 Rating Changes and Deadline

It is generally undesirable to allow boats to change rating shortly before or during a regatta or short series of races. Allowing this to happen offers a competitor the opportunity to refine their rating by, for instance, the inclusion/omission of sails depending on anticipated weather conditions. Additionally, and from a logistical and administrative point of view, it is desirable for ratings to have been submitted a few days prior to the start of the event. Suitable wording is:

Notice of Race:

x.0 "Boats shall submit a copy of their IRC certificate not later than [time / date]. No alteration to a boat's TCC will be permitted after this date, except as a result of a rating protest, or to correct Rating Authority errors."

2.4 RRS 52 Manual Power

IRC Rule 15.1 deletes RRS 52, Manual Power. All boats are permitted to use stored power for the adjustment and operation of sails and movable appendages, if rated to do so. This recognises the number of boats now fitted with powered sail handling and other equipment. Deletion of RRS 52 also permits boats to use autopilots, recognising the steadily increasing trend towards short-handed racing.

IRC Rule 15.1 may however be modified by a Notice of Race, so Organising Authorities may wish to re-impose RRS 52, either entirely or in a limited manner to suit the particular circumstances. Noting the variety of restrictions that might be included it is not possible to suggest a specific clause for a Notice of Race.

2.5 Crew Limits

2.5.1 Crew Number/Weight

The IRC Rule invokes a crew weight limit as the default position unless this is changed by a Notice of Race. IRC Rule 22.4.2 says:

22.4.2 The crew weight shall not exceed 85kg multiplied by the Crew Number printed on the certificate.

The calculated crew weight is also printed on the certificate.

For events wishing to not impose any crew weight or number limit, a suitable clause would be:

Notice of Race: IRC Rule 22.4.2 shall not apply. There will be no limitations on crew weight except as required for boats rated as one designs which shall comply with IRC Rule 22.4.1.

If an Organising Authority wished to remove all crew limitations, including for one designs, then a suitable clause would be:

Notice of Race: IRC Rule 22.4 shall not apply. There will be no limitations on crew weight.

Alternatively, Race Committees may wish to apply additional or different limitations. There are many options which might be stated in a Notice of Race, a few of which follow:

Notice of Race:

EITHER x.1 Maximum Crew Number.

IRC Rule 22.4.2 is deleted and replaced by “The maximum number of crew while racing shall be the Crew Number printed on her certificate. There is no weight limit.”

OR x.1 Maximum Crew Number.

IRC Rule 22.4.2 is deleted and replaced by “The maximum number of crew while racing shall be the Crew Number printed on her certificate plus/minus x. There is no weight limit.”

OR x.1 Maximum Crew Weight.

IRC Rule 22.4.2 is deleted and replaced by: “The maximum total weight of crew in kilograms while racing shall not exceed the product of the Crew Number printed on her certificate multiplied by 80 (or other suitable value). There is no maximum number of crew.”

AND x.2 In the case of a boat rated as a One-Design, and when her IRC crew limitation exceeds her One-design Class crew limitation, a boat shall comply with her One Design Class rules.

[x.3] *[There shall be no restriction on crew changes.]*
[The following crew change restrictions shall apply:]

Race organisers may specifically wish to encourage youth and female crews at their event and the following wording is a suggested way of implementing this incentive at an event. This worked well at the IRC European Championship and there were owners excited they could sail with their younger son and not feel disadvantaged.

Notice of Race: IRC Rule 22.4.2 Crew Number/Weight is deleted and replaced by "The maximum number of crew that may sail aboard a yacht shall be the number shown on the certificate except that; when the crew consists of either - at least 2 females, at least 2 25 years old or under (25 or under on [date]) or at least 1 female and 1 25 years old or under (25 or under on [date]) then the crew limit is certificate number plus 1. There is no weight limit."

It is recommended that when *any* crew number or weight limitations are in force, race organisers should publish the crew limit for each entry (the online IRC listing includes IRC Crew Number).

Generally, except for safety reasons, specifying a minimum crew number is not recommended. However, race committees may impose a maximum variation in crew number or weight to prevent boats leaving crew ashore on light weather days.

2.5.2 Reduced Crew

The Coronavirus pandemic enforced restrictions on crew numbers and in many cases this proved popular particularly amongst club racers. Many clubs saw increased entries in their club racing compared with previous years, and the general feedback was that owners were enjoying racing with fewer crew where safe to do so. The less high tech boats also felt they could compete better with the local 'hot shots' because everyone was subject to the same crew limitations.

Don't forget that changing IRC crew number limits is permitted within the IRC rule and may be considered to encourage entries.

Some examples are:

Notice of Race:

x.1 Maximum crew number.

Crews of up to a maximum of 6 people from any household or two-thirds of a boat's IRC crew number (rounded down) whichever is the least. This changes IRC rule 22.4.

OR x.1 Maximum crew number.

Crew limited to 80% to the nearest whole number of the boats IRC Certificate crew number. This changes IRC rule 22.4.

2.5.3 Crew Amateur/Professional Categorisation

IRC Rule 22.5 notes that IRC contains no restrictions on Crew Categorisation, in other words professionals and amateurs, but a Notice of Race may impose restrictions. If an Organising Authority wishes to impose restrictions, it is strongly recommended that the World Sailing Sailor Categorisation Code is used. In International events invoking Crew Categorisation, the use of this particular Code will be a prerequisite.

Noting the variety of restrictions that might be included, it is not possible to suggest a specific clause for a Notice of Race.

2.6 IRC Classes

Apart from the obvious splits by TCC, boats may also be split into classes by type. IRC rates a wide variety of boats ranging from classics through to high tech racers and 'sportsboats'. Each of these has its own performance profile resulting in race results becoming increasingly dependent on conditions and course type (see para 5.). As a general principle, when fleets are large enough, splitting boats by boat type and/or size or

speed, for instance separating 'sportsboats' from 'cruisers', can be to the benefit of all and is highly recommended.

Physical parameters can be used to define different classes and the following outlines some of the options:

Displacement Length Ratio (DLR) Within the IRC fleet as a whole, average DLR is around 200. Typical modern cruisers are generally in the range 200 to 300. Modern cruiser/racers fall largely between 150 and 200, with boats below 150 being modern racers, racer/cruisers and sports boats. A simple split by DLR alone may however be unsatisfactory as DLR tends to reduce with increased boat size and vice versa. To better define a class it is advisable to combine it with a size limitation(s) and possibly a third criterion (see the example of Sportsboats below)

Hull Factor (HF) This can be used to separate cruisers (lower HF) from racers (higher HF). Typically, boats with hull factors of 7.6 and below will be cruisers, but again a secondary factor may be needed to remove anomalies. In this context, an associated minimum DLR can work to define a cruising class.

Age or Series Date Probably the best use of age is in identifying 'classic' boats, and qualifying dates are of course at the discretion of race committees. It is recommended that Series Date is used to include or exclude all boats of the same design if applicable.

Sportsboats Whilst the criteria are not defined in IRC, and may vary depending on local fleets, a sportsboat may generally be defined as having a DLR of less than 150, LH less than 10m, and TCC greater than 0.950.

Short Handed While IRC is meant for short handed crews to race with fully crewed boats, it may be necessary or desirable for a race organiser to split boats by crew number for limited number or short handed crewed boats.

A clause to encompass some of the above might incorporate any of the following:

Notice of race:

x.0 Boats shall race in the following classes:

Class	Rule/Type	Parameters
0	Racing	LH greater than 9.0m and less than 16.5m.
		IRC Series Date: 2000 and later.
		IRC Hull Factor: 10.4 and higher.
		IRC DLR: 145 and lower.
		Greater than 1.000 and less than 1.350.
1	IRC	TCC 1.100 to 1.199.
2	IRC	TCC 1.000 to 1.099.
3	IRC	TCC 0.999 and below.
4	IRC Cruiser	IRC Hull Factor 7.6 or less.
5	IRC Classic	IRC Series Date of 1970 or earlier.
6	Sports boats	DLR less than 150, LH less than 10m, and TCC greater than 0.950
SH	Short handed	No more than 2 crew

x.1 A boat which meets all the requirements for class 0 shall race in class 0.

x.2 A boat which meets the requirements for both classes 4 and 5 shall race in class 5.

x.3 A boat which meets all the requirements for class 6 shall race in class 6.

x.5 Classes may be altered, amalgamated, or divided at the discretion of the race committee. The Race Committee may specify that all boats of a particular design shall race in the same class

2.7 Endorsed Certificates

An Endorsed certificate is one where the rated data has been verified by measurement or other means, and this usually incurs a cost to the boat owner. Race Committees should therefore consider carefully before requiring all entrants to hold Endorsed certificates. Many less serious competitors will be discouraged from entering at all, while the more serious are probably already Endorsed. To avoid deterring possible entrants the second option below may be more appropriate.

Notice of race:

x.0 Boats in classes 0, 1, and 2 (3, 4, 5 etc) shall hold IRC ENDORSED certificates.

OR

x.0 To obtain class and/or overall points and/or club championship points, a competing boat shall (at the time of the race for which points are being awarded) hold an IRC ENDORSED certificate. Boats not holding ENDORSED certificates shall not be included in any points calculations.

The second option allows a boat without an Endorsed certificate to compete in an individual race, but she will not gain points towards an overall trophy.

An Endorsed IRC certificate may have been issued with a Boat Weight derived from another rating certificate (e.g. ORCi DSPM), as allowed by IRC Endorsement guidelines. However, an organizing authority for a race might include a requirement that all boats shall have been weighed to establish Boat Weight for their Endorsed certificates.

IRC Rule 8.5 is specific that an Endorsed certificate will (irrespective of certificate print language) carry a Rating Authority ENDORSED stamp. Other IRC certificates will carry a STANDARD certificate stamp.

2.8 Non Spinnaker Ratings

IRC certificates for all boats also show a non spinnaker TCC. Race Committees attention is drawn to Rule 8.6 which restricts the use of this TCC to races specifically defined as non spinnaker. This restriction is deliberate and is to prevent abuse of the non spinnaker TCC. Note however that IRC Rule 11.1 permits a Notice of Race to modify this rule.

2.9 Secondary Certificate

IRC Rule 8.2 permits a boat to hold a second, concurrently valid, IRC certificate for use in any racing. This permits an owner to configure their boat differently without the need to continually change their IRC certificate, for example for offshore racing or short handed racing. There are restrictions on the variations from the primary certificate in IRC Rule 8.2. The secondary certificate type replaces the previous short handed certificate.

IRC Rule 8.2.1(c) requires owners to declare the primary or secondary certificate to the race organiser before the rating deadline. It is therefore important that the Notice of Race has a suitable rating deadline to prevent optimisation for the weather etc. See section 2.3.

Any boat holding a secondary certificate will appear twice in IRC rating lists, with the secondary TCC clearly identified.

2.10 Protest limits

IRC Rules 9 and 10 address rating reviews and protests. Linked to these, Rule 11.1 permits a Race Committee to amend Rule 9.6. A suitable instruction would be:

Notice of race:

x.0 IRC Rules 9.6 is amended to the extent that 0.005 is reduced to 0.00x.

In the event of a rating or measurement protest, protest committees needing guidance are encouraged to contact the

IRC Rating Authority. See also section 4 below re Equipment Inspection at events.

2.11 Sail Limitations

The limitations on sails carried and/or used are defined by IRC Rule 21.1.5. While Rule 11.1 permits an Organising Authority to amend this, amendments are not recommended except in very specific circumstances.

It is however a good idea to clarify whether or not Rules 21.1.5 (d) and (e), which address regattas run on consecutive days, apply. Suitable text might read:

Notice of race:

x.0 For the purpose of IRC Rules 21.1.5 (d) and (e) this regatta is [is not] on consecutive days and the sails carried shall [shall not] remain the same.

2.12 Excluded scores (discards)

Allowing too many excluded scores (ref. RRS A2) in a series can lead to distortions in the overall result. For instance, if a particular boat is very competitive in a specific range of conditions and uncompetitive in other conditions, and she has the opportunity to exclude scores from all those races outside her conditions, this may produce a result which does not properly reflect her overall performance relative to others in the fleet. This should be considered when deciding on the appropriate number of excluded scores for an event or series.

2.13 Safety and Stability Screening

IRC Rule 23 states that race organisers may impose limits for race entry on safety grounds. The IRC certificate will show the SSS and if available the STIX and AVS for a design or individual yacht. The IRC Website includes full details of the screening of boats for races under the race management section: <https://ircrating.org/irc-racing/race-management/>

2.14 Autopilots

IRC Rule 15 states that boats shall not use stored power for steering (i.e. autohelm/autopilot) unless specified by the Notice of Race. A suitable instruction to permit or require an autohelm would be:

Notice of Race:

*x.0 Automatic and Wind-vane devices for Steering
Automatic and wind-vane devices for steering are permitted
(this changes IRC Rule 15.2(d) and RRS 52)*

OR

x.0 A short handed boat shall be fitted with an autohelm. (this changes IRC Rule 15.2(d) and RRS 52)

3. MEASUREMENT

For event organisers requiring it (e.g. for Equipment Inspection) the IRC Measurement Manual is available on www.ircrating.org.

4. POLICING AND EQUIPMENT INSPECTION

Please see www.ircrating.org/racing/event-inspect for advice on Equipment Inspection (check measurement) at events.

Note that Rule 9 Rating Reviews, and specifically the stated data limits, does not apply to Equipment Inspection (i.e. check measurement) at an event. Rule 8.10 specifically lists data which are maxima or minima. If data on a boat is found to exceed a maximum value or to be less than a minimum value, then she does not comply with her certificate.

5. COURSES

With the ever-increasing range of boat types racing under IRC, it is inevitable that courses and conditions will affect race

results. Race Committees can minimise these effects by considering carefully the types of courses set. Conditions are beyond the control of a race committee, but even then course location may be significant.

During the Coronavirus pandemic many clubs offered less formal racing to build confidence and generate interest particularly amongst those new to racing. Imaginative ideas included self-timed races or lap times; or offering overlapping long, medium and short courses with each boat deciding on the way round which course to complete. It was also observed that holding round-the-cans or other varied race types rather than only windward-leeward courses proved popular and tended to attract more boats.

There has been much discussion in recent years concerning the dominance of windward-leeward courses. The IRC Technical Committee considers that if all races were windward-leeward, designers would inevitably optimise designs for this style of racing, e.g. heavy, narrow designs with poor reaching performance. **Noting also that a balance of course types is a fundamental part of fair yacht racing, it is strongly recommended that race committees should set a variety of courses.** For IRC regional or national championships this should be stipulated as a requirement.

Some of the issues that a race committee might then consider are:

Course Type. Courses without a downwind leg and with only reaching legs will inevitably favour bowsprit rigged boats and lighter boats generally. Conversely, all downwind legs will favour boats with conventional spinnaker poles and the heavier boats. Including both types of course will give everybody a chance on their day, but over a series a balanced range of courses should be provided wherever possible.

Current. Upwind legs against a tidal current will tend to favour faster, more windward-oriented designs and vice versa. As an

extreme example, an all downwind, down current course will almost inevitably produce a winner from the small, slow end of the fleet. When possible, selecting courses to minimise these effects will produce more equitable results generally.

A second issue with tidal current is that boats will inevitably try to minimise (or maximise as appropriate) current effects. This becomes particularly relevant when there are current gradients across a course and boats are trying to get out of a foul current. Unless the shoreline is very steep-to, the smaller (shallower draft) boats will be able to do this more effectively. In these circumstances, it can be worth considering either moving the whole course away from the shore so that everybody is in the full current all the time, or including a series of passing marks to force boats into the current.

Weather Conditions. No race committee can influence the weather! They can however influence where the course is positioned. If it is particularly rough, larger heavier boats will be favoured upwind. So, if a series features a number of heavy air races, it might if possible be worth considering a less exposed course area for some races, if this is a possibility. Similarly, very constricted course areas (narrow channels for instance), particularly in light airs, will favour the lighter and more nimble boats in the fleet.

6. DUAL SCORING

Dual scoring with a handicap rule is possible and encouraged. As an example, in Ireland the Irish Sailing Association recommends that whenever possible club races should be dual scored under both ECHO (the ISA's personal performance handicap rule) and IRC, when boats hold both. The logic of this is that a personal handicap facilitates entry into racing for the less experienced sailors. It enables them to compete against, and gauge their performance against, the more experienced sailors, while at the same time offering

parallel IRC results for the latter group The IRC Congress endorses this policy and recommends that whenever possible dual scoring should be adopted.

Rather than splitting fleets into IRC and performance handicap for club racing, clubs are strongly recommended to race all boats together, split into classes as appropriate, and to dual score under both IRC and performance handicap.

In GBR with the adoption of YTC by the RYA and RORC, it is recommended that club races are dual scored under IRC and YTC. Further advice is available from the Rating Office for clubs adopting this policy.

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