IRC 2009
NOTES FOR RACE ORGANISERS

1. Preamble

At the simplest level, all a Race Committee need say in its sailing instructions is: "The IRC Rules, Parts 1, 2, and 3 (or 4) shall apply". At the end of the race they then 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. There are however other related issues which a race organiser might wish to consider and to include as appropriate.

The following lists some of these and gives suitable wording that might be used. In many places, the detail will need tailoring to suit the specific circumstances. Race Committees are of course free to do this. The Rating Office is happy to provide advice and detail if required. The Rating Office is also able to provide copy certificates and regularly updated computer listings of all boats' certificate details.

Further relevant information can also be found on our website at www.rorcrating.com. Additionally, an IRC Race Management booklet is available from the Rating Office.

2. Notice of Race and Sailing Instructions

Before getting to the race course, various issues within IRC rules need consideration and possible incorporation within the Notice of Race and/or Sailing Instructions for an event. IRC Rule 11, Changes to Class Rules, draws attention to many these. Others however are outside IRC Rules directly.

2.1 Advertising

Since 2001, IRC has included two separate but very nearly identical sections. Part 3 is IRC with advertising permitted. Part 4 is IRC with advertising not permitted. It is up to Organising Authorities to specify in their Notices of Race which shall apply. **As a change for 2009** if neither is explicitly specified, then the preamble to IRC notes that **Part 3** shall apply. **ie, the default is now that advertising is permitted**. Parts 1 and 2, the common Parts of the IRC Rule, will always apply. Thus for example, for IRC racing with advertising:

> *The IRC Rules Parts 1, 2, and 3 shall apply.*

and without advertising:

> *The IRC Rules Parts 1, 2, and 4 shall apply.*

Organising Authorities are advised to consider carefully before invoking Part 4, IRC without advertising.. It is recommended that racing under IRC Part 4 is generally restricted to locally based racing at which competitors are largely all members of the same club or affiliation of clubs. If visiting competitors from further afield than the immediate locality are expected, it is recommended that racing should be held under Part 3, IRC with advertising permitted.

Additionally, if it is likely that any "Class" boats will be competing, note should be taken of the advertising status 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 4 might debar those boats from competing.

The Rating Office are happy on request to advise Organising Authorities in more detail.

2.2 Rating Changes

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 his 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 prior to the start of the event. Suitable wording might be:

Notice of Race:

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

Sailing Instructions:

x.0 *Except as a result of a rating protest, or to correct a rating office error, no changes to a boat's TCC will be permitted after ..... ."*

2.3 RRS 52 Manual Power

IRC Rule 14.1 deletes entirely RRS 52, Manual Power. All boats are thus permitted to use stored power for the adjustment and operation of sails and movable appendages. The logic behind deleting RRS 52 is to recognise the increasing number of boats throughout the size range fitted with powered sail handling and other equipment. Additionally, deletion of RRS 52 permits boats to use autopilots, recognising the steadily increasing trend towards short handed racing.

This IRC Rule may however be modified by a Notice of Race. Organising Authorities are thus permitted to re-impose RRS 52, either in its entirety or in a limited manner to suit the particular circumstances of their race. Noting the variety of restrictions that might be included it is not possible to frame a specific clause for a Notice of Race. The Rating Office are happy to give detail advice if requested.

2.4 Crew Limits

2.4.1 Crew Number/Weight

As prescribed by rule 27.4.1, except for boats rated with short handed certificates, as strict One-Designs or in races requiring Endorsed certificates, IRC imposes no crew number or weight limitations. Race Committees may of course remove even these restrictions. A suitable clause would be:

Notice Of Race and Sailing Instructions:

x.0 *IRC rule[s] 27.4.2 [and/or 27.4.3] shall not apply.*

Alternatively, Race Committees may wish to apply additional limitations. It is recommended that when *any* crew number or weight limitations are in force, race management authorities should publish a list of crew limits. There are many options, a few of which follow:

Option 1

Notice Of Race:

x.0 *IRC rule 27.4.1 is modified by the addition of the following:*

EITHER *x.1* *Maximum Crew Number.*
The maximum number of crew that may sail aboard a boat shall be the Crew Number [plus/minus x] printed on her certificate.

OR *x.1* *Maximum Crew Weight.*
The maximum total weight of crew in kilograms that may sail aboard a boat shall not exceed the product of the Crew Number printed on her certificate multiplied by 80 (or other suitable value).

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:]

Option 2

Notice Of Race:

x.0 IRC rule 27.4.1 is modified by the addition of the following:

x.1 Each boat shall declare her 'Initial Crew Number' prior to the first race in which she competes.

x.2 Variation in a boat's crew number shall be limited according to the following table, based upon her Initial Crew Number:

Initial Crew Number	*Limit of Variation*
Up to 4	*-1 +2*
5 -12	*-2 +2*
13 - 20	*-3 +2*
21 or more	*-4 +3*

There are of course many other options a race committee might choose.

Generally, except for safety reasons crew number minima are not recommended. However, race committees may wish to consider whether a maximum variation in crew number should be imposed to prevent boats leaving crew ashore on light weather days.

2.4.2 Crew Classification

IRC Rule 27.5 notes that IRC contains no restrictions on Crew Classification, in other words professionals and amateurs. The Rule continues to state that a Notice of Race may impose restrictions. If an Organising Authority wishes to impose any restrictions, it is strongly recommended that the ISAF Sailor Classification Code is used. In International events invoking Crew Classification, the use of this particular Code will be almost a prerequisite.

Noting the variety of restrictions that might be included it is not possible to frame a specific clause for a Notice of Race. The Rating Office are happy to give detail advice if requested.

2.5 IRC Classes

Apart from the obvious splits by TCC, Race Committees might consider splitting boats into classes by type. One of the problems IRC suffers from is its acceptance of such a wide variety of boats ranging from elderly heavy cruisers through ex-IOR types to the modern ‘racers’ and 'sports boats'. Each of these has its own performance profile resulting in race results becoming increasingly dependent on conditions and course type. As a general principle, when fleets are large enough, splitting boats into classes defined by boat type and/or size or speed can be to the benefit of all and is highly recommended. Splitting the ‘sportsboats’ from the ‘cruisers’ is to the benefit of all.

Alternatively, as has successfully been used at various regattas, the physical parameters of boats can be used to define particular boats for the creation of a ‘racing’ class.

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 with anything over this being regarded as 'heavy'. 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. A second, and possibly third, criterion may better define a class. A sports boat class might for instance be: "Boats with DLR less than 150, LOA less than 10m, and TCC more than 0.950.". In the specific case of sports boats however, a better alternative might well be the RYA/RORC Sportsboat Rule (SBR). Organising Authorities considering the use of DLR limits for classes should note that while DLR is a non dimensional parameter, it nevertheless tends to reduce with increasing size of boats. Care should therefore be exercised in selecting the limiting value for a class of wide variation in size with ideally, limits being specific to classes rather than a fleet as a whole. Please contact the Rating Office for further detail.

Hull Factor Probably the best use of hull factor is in separating the cruisers from the racers. Genuine cruisers have lower hull factors than racers. Typically, boats with hull factors of 7.5 and below will be cruisers. 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 Probably the best use of age is in identifying 'classic' boats. Qualifying dates are of course totally at the discretion of race committees.

DAYBOATS Ideally, DAYBOATS should not race with cruiser/racers. Their performance characteristics are often so different as to make good racing difficult. In practice, except in areas with large fleets, it is inevitable that DAYBOATS will race with cruiser/racers. In these latter circumstances, it would be unfortunate to exclude DAYBOATS from racing; permitting them to race with cruiser/racers then becomes the best available option. DAYBOATS are identifiable by the 'D' printed on their certificates adjacent to TCC.

A clause to encompass some of the above might read:

Notice of race:

x.0 Boats shall race in the following classes:

Class	*Rule/Type*	*Parameters*	
0	*IRM/Racing*	*LOA:*	*Greater than 9.0m and less than 16.5m.*
		IRC Series Date:	*1995 and later.*
		IRC Hull Factor:	*10.4 and higher.*
		IRC DLR:	*145 and lower.*
		IRC TCC:	*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/Cruisers*	*IRC Hull Factor 7.5 or less.*	
5	*IRC/Classic*	*IRC Age (Series) Date of 1970 or earlier.*	
6	*IRC/DAYBOATS*	*IRC DAYBOAT.*	
7	*SBR/Sports Boats*	*All sportsboats*	

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 An IRC DAYBOAT shall race in class 6.
x.4 A boat which meets all the requirements for class 7 shall race in class 7.
x.5 Classes may be altered, amalgamated or divided at the discretion of the race committee. Specifically, all boats of a particular design shall race in the same class at the direction of the Race Committee

2.6 Endorsed Certificates

Race Committees should consider carefully before requiring all entrants to hold Endorsed certificates. Many less serious competitors will simply find this a disincentive to participation at all, while the more serious are in all likelihood already measured. In these circumstances, option 2 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 an 'unendorsed' boat to compete in an individual race, but bars her from gathering points for an overall trophy.

IRC endorsement guidelines offer various options to Rule Authorities for sources of data for endorsed certificates including the option of the use IMS DSPM for the derivation of empty weight. If a country has elected not to adopt this option, an organizing authority for a race including boats from overseas might then also include a requirement that all boats shall have been weighed to establish empty weight for their endorsed certificates.

2.7 Non Spinnaker Ratings

IRC certificates for all boats also show a non spinnaker TCC. Race Committees attention is drawn to rule 9.4.2 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 Sailing Instructions to modify this class rule.

2.8 Short Handed Races

New for 2007, IRC Rule 9.2 now permits a boat to hold a second, concurrently valid, IRC certificate for use by a boat in short handed (ie maximum 2 crew) races. This permits an owner to configure his boat differently for short handed racing without the need to continually amend and re-amend his certificate. The short handed certificate is ONLY valid for short handed racing and may NOT be used as an alternative certificate for normal racing. There is no reason however why a boat should not enter a short handed race using her normal certificate. Race organizers should note that any boat holding a short handed certificate will appear twice in IRC rating lists, with the short handed TCC clearly identified.

2.9 Protest limits

IRC Rules 19 and 20 address rating reviews and protests. Linked to these, Rule 11.1 permits a Race Committee to amend Rules 19.6, 19.7 and 19.8. It is not recommended that major changes should be made without first consulting the Rating Office. However, for higher level events it may be appropriate to reduce the 0.005 limit for certificate invalidity defined in Rules 19.6 and 19.7. If this is done, it is recommended that it should be included in the Notice of Race as well as the Sailing Instructions. It is recommended that this limit should never be increased.

Notice of race and Sailing Instructions:

x.0 *IRC Rules 19.6 [and/or 19.7] are amended to the extent that 0.005 is reduced to 0.00x.*

2.10 Sail Limitations

The limitations on sails carried are defined by IRC Rule 26.1.5. While Rule 11.1 permits a race committee to amend this, amendments are not generally recommended except in very specific circumstances.

It is however worthwhile clarifying whether or not Rules 26.1.5 (d) and (e) which address regattas run on consecutive days apply. A suitable clause might read:

Notice of race:

x.0 *For the purpose of IRC Rules 26.1.5 (d) and (e) this regatta is [is not] on consecutive days and the sails carried shall [shall not] remain the same..*

2.11 Discards

Incorporating an excessive number of discards into a series can lead to distortions in the series result. For instance, if a particular boat is very competitive in a narrow range of conditions and uncompetitive in other conditions, if she has the opportunity to discard 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. It is recognised that a large number of discards is appropriate in a long series. A small reduction however may be appropriate in some circumstances.

2.12 Safety and Stability Screening

Pp xx-yy of this Yearbook give full details of the screening of boats for races. Organising Authorities should note that is they are using the SSS System, then with effect from 1st January 2009, the adjustment element of SSS for compliance with a particular category of ISAF Offshore Special Regulations (OSR) has been discontinued.

Prior to 1st January 2009, an Organising Authority stated in its Notice of Race the minimum qualifying SSS *Numeral*. This SSSN was made up of the SSS Base Value plus any adjustment for compliance with a category of Offshore Special Regulations. With effect from 1st January 2009, Organising Authorities will specify the minimum qualifying SSS *Base Value*. In overall terms, the effects will be zero except that the requirement for a boat to comply with the conditions of any adjusted SSS Numeral at all times irrespective of the OSR category of the race she is competing in will disappear.

3. Measurement

Measurement generally is beyond the scope of this guide. However, an IRC Measurement Manual is available on the Rating Office website.

4. Policing

Always a thorny subject! As with the rest of sail boat racing, certification has to some extent to be self policing. There are however steps race committees can take to help and occasions when a more pro-active stance is appropriate.

Before a regatta or series starts, race committees should require that all competitors show the original of their certificate to the regatta office. It is good practice to take copies a) for the file and b) so that a complete set of all competitors certificates can be made available to the fleet. As well as (obviously!) the TCC, particular points to note on a certificate are:

- The date — Is it valid? Is it after the cut-off date for certificate lodging?
- Crew — Relevant if crew number/weight or classification restrictions are in force.
- Headsails — Is the boat rated for multiple headsails or for a single roller furling headsail with/without a heavy weather jib?

All of the above and other related information is also contained in fleet listings now available to all on the Rating Office website, www.rorcrating.com. Race organizers needing any further information should contact the Rating Office at info@rorcrating.com.

If there is to be pro-active policing by the race committee, do any checks in public so that the fleet can see what is being done! It is obviously generally both impractical and undesirable to fully re-measure boats. However, some simple checks can increase individual competitor's confidence that the rest of the fleet is correctly rated and reduce 'bar talk'.

The primary issue, and the easiest to check is sails. Certificates show all the relevant data for each boat. Note that for both spinnakers and headsails, certificates show the maximum permitted area for each. In the case of headsails, note that in addition to maximum rated area, there is also a maximum rated headsail luff length. While there is no requirement under IRC for sails to be stamped or signed by a measurer, there is equally nothing to stop a measurer doing so.

Other useful and simple issues that can be checked are rig details (No. of spreaders etc.), rig material, and internal ballast.

Finally, IRC Rule 19.2 includes the phrase *'Anyone who has a valid interest in a boat's certificate may also request rating review from the Rating Authority'.* To be clear, the Rating Office has interpreted this to include clubs and race committees with whom a boat is racing.

5. Courses

With the ever increasing range of boat types racing under IRC, it is inevitable that courses and conditions will have an effect on race results. Race Committees can go a considerable way towards minimising these effects by considering carefully the types of courses set. Conditions are of course beyond the control of a race committee, but even then course location may be significant. Some of the issues that a race committee might then consider are:

Course Type. Courses without runs and with only reaches will inevitably favour bowsprit rigged boats and lighter boats generally. Conversely, all runs 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 is very desirable.

Current. Beats against the current will tend to favour faster more windward oriented designs and vice versa. In the limit, 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 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 alternatively 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 on occasion 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

At the 2003 IRC Council meeting, Councilors again noted the Irish Sailing Association policy that whenever possible club races should be dual scored under both ECHO (the ISA's personal performance handicap rule) and IRC for boats holding certificates for both. The logic of this is that a personal handicap facilitates entry into racing for the less experienced and enables them to compete against and gauge their performance against the more experienced sailors while at the same time not discouraging the latter group (who will probably have penal personal handicaps) by offering this group parallel IRC results. The RYA's Handicap Group have now reviewed this long standing and successful ISA policy and noting that IRC is complementary to personal handicaps have agreed that this should also be RYA policy. Rather therefore than splitting fleets into IRC and PY or local for club racing, clubs are therefore recommended to consider dual scoring under IRC and PY or local (personal) handicap as an alternative. Further advice is available from the Rating Office for any clubs wishing to adopt this policy.

7. Certificate Validity – ‘Certificate Year’

With an increasing number of boats traveling the world to compete in major races, it becomes increasingly important for race organizers to check certificate validity. A particular issue is that the ‘certificate year’ is different from the northern to the southern hemispheres. For Australia, New Zealand, South Africa 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. Organisers are urged to check and advise boats as appropriate.