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Royal Ocean Racing Club
RORC
20 St James's Place
London SW1A 1NN
Telephone +44 (0) 207 493 2248, Fax +44 (0) 207 493 5252
E-Mail racing@rorc.org.uk
RORC Web Site http://www.rorc.org

Union Nationale pour la Course au Large
UNCL
Face au 36 Quai Le Gallo
92100 Boulogne/Seine
France
Tel +33 (0)1 46 04 17 80, Fax +33 (0)1 46 04 17 73
E-Mail irc@uncl.com
UNCL Web Site http://www.uncl.com

Produced by
Seahorse Rating Ltd
Seahorse Building, Bath Road
Lymington, Hampshire SO41 3SE
England
Telephone +44 (0) 1590 677030, Fax +44 (0) 1590 679478
E-Mail info@rorcrating.com
RORC Rating Office Web Site http://www.rorcrating.com

PREAMBLE

Any changes herein have no authority until 1 January 2012.

IRC is a rating rule providing racing for 2 separate classes of boats. Part C permits advertising in accordance with ISAF Regulation 20, Advertising Code. Part D does not permit advertising. Organising Authorities should specify in a Notice of Race either Part C or Part D. If neither is specified, then by default Part C shall apply.

TERMINOLOGY

A term used in its defined sense is printed in "**bold**" type if defined in the ERS, in "*italic*" type if defined in the RRS and in "underscore" type if defined in IRC Rules. Any abbreviation given in Appendix 1 is used in its defined term unless specified otherwise.

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Part A Rule Policy

1 INTRODUCTION

1.1 The Rule is in two parts, Part C, IRC, advertising permitted, and Part D, IRC, advertising not permitted. IRC is a rating rule based upon owner-supplied information and will remain secret. The emphasis is on simplicity and concise rules.

2 FUNDAMENTAL POLICY

2.1 IRC is a system of measurement which classifies a broad range of cruising and racing ballasted monohull keel boats for competition by providing ratings comprising single figure allowances based on time.

2.2 The IRC concept protects the existing IRC fleet.

2.3 IRC encourages design innovation consistent with stability, rounded performance, seaworthiness and safety.

2.4 IRC discourages unnecessary expense at all levels.

2.5 The spirit of IRC requires that owners and designers shall not seek means of artificially reducing the rating of a boat, e.g. increasing performance without a corresponding increase in rating.

2.6 Calculation of IRC ratings is secret and contains subjective elements. Subjective judgement where exercised is the sole responsibility of the Rating Authority (as defined in Rule 4.1).

2.7 IRC ratings may rely on owner submitted data (see Rules 8.4 and 9) but a Rule Authority (as defined in Rule 4.1) may require that **boats** be weighed and measured by an appointed measurer for certificates issued under their jurisdiction. Some or all of the dimensions of class production **boats** may be standardised.

2.8 Any exploitation of the inherent simplicity of the IRC Rule will be discouraged. The RORC Rating Office and UNCL therefore reserve the right to make adjustments or amendments to any part of IRC at any time in order to prevent undesirable or unforeseen lines of development.

3 IMPORTANT NOTICE

3.1 The safety of a boat rated under IRC and its entire management including insurance shall be the sole responsibility of the owner/competitor who must ensure that the boat is fully found, thoroughly seaworthy, and operated by a **crew** sufficient in number and experience who are physically fit to face bad weather. The owner/competitor must be satisfied that:

3.1.1 The **hull**, **hull appendages**, **spars**, rigging, **sails** and all gear are sound.

3.1.2 All safety equipment is properly maintained, stowed and in date.

3.1.3 The **crew** know where such equipment is kept and how it is to be used.

The ultimate decision on whether or not to race remains the sole and inescapable responsibility of the owner or the owner's representative.

3.2 None of the establishment of these Rules, their use by race organisers, the issue of a rating certificate under these Rules, nor any inspection of the **boat** under these Rules shall constitute any representation or warranty by the Rating Authority as to the seaworthiness of any boat or the safety of any gear and shall not in any way limit the absolute responsibility of the owner/competitor referred to in Rule 3.1. This notice shall be brought to the attention of any person who sails on a boat in respect of which a rating certificate has been issued under these Rules.

3.3 Ratings issued under IRC are calculated in good faith from the data available. Neither the Rating Authority nor any Rule Authority shall have any liability whatsoever for any error in the application of these Rules or the determination of any factor which may affect the rating or the exercise of any judgement in the application of these Rules or the issue of a certificate or for changes in these Rules.

3.4 The establishment of an IRC Crew Number in respect of any boat does not constitute any representation or warranty as to the safety of the boat when sailing with this or any other number of **crew** (see Rule 3.1). When domestic law invokes any form of **crew** limitation different from the IRC Crew Number, this limitation shall replace IRC Crew Number.

Part B General Information

4 ADMINISTRATION

4.1 IRC is administered by Seahorse Rating Ltd (referred to in these Rules as the RORC Rating Office) and the UNCL Centre de Calcul (referred to as UNCL) only. The expression Rating Authority is defined as the RORC Rating Office and the UNCL Centre de Calcul acting jointly. The expression Rule Authority is defined as any other individual or body authorised by the Rating Authority to act for the Rating Authority on a local basis for the administration of IRC in a defined geographical area.

4.2 In order to ensure the integrity of the secret elements of the IRC Rule all details of the IRC Rule are the sole property of the RORC Rating Office and UNCL who shall appoint an IRC Technical Committee comprised solely of those persons who have knowledge of the secret elements of the Rule. This committee shall be solely responsible for any changes in the Rule algorithms.

4.3 IRC TCCs are the copyright of RORC Rating Office and UNCL jointly. Action may be taken against any third party using IRC derived handicaps, whether precise or amended, for the purpose of race handicapping any boat without a current IRC certificate. Stability and Safety Screening numerals are RORC Rating Office copyright.

4.4 The IRC Policy Steering Group is responsible for the overall direction of IRC. The IRC Policy Steering Group comprises representatives appointed by RORC and UNCL, and a representative appointed by the International IRC Owners Association.

4.5 Additionally there shall exist an International IRC Owners' Association comprising owners of boats holding current IRC certificates. The International IRC Owners' Association shall have international representation which reflects the distribution of certificated boats, and shall be a forum for owners to discuss and if agreed to make recommendations or suggestions to the IRC Technical Committee and the IRC Policy Steering Group.

5 INTERPRETATIONS

5.1 Requests for interpretation of the IRC Rule shall be made in writing through Rule Authorities to the Rating Authority who will consult and communicate any decision to Rule Authorities.

6 DISPENSATIONS

6.1 The Rating Authority may grant dispensations to the IRC Rule on an individual boat basis at it's entire discretion. Any such dispensations shall be noted on a boat's IRC certificate.

7 LANGUAGE AND RULE DEFINITIONS

7.1 The languages of IRC shall be English and French. In the event of any discrepancy, the English text shall prevail. The meaning of any word shall be by reference to the Oxford English Dictionary in the context in which it appears. The words ‘shall’ and ‘must’ are mandatory, the words ‘may’ and ‘can’ are permissive. The word ‘should’ is advisory.

7.2 Any reference to the Racing Rules of Sailing (RRS) is defined as the current version of the Racing Rules of Sailing of the International Sailing Federation (ISAF). Reference to the Equipment Rules of Sailing refers to the current version of the ISAF Equipment Rules of Sailing (ERS). Reference to Special Regulations is defined as the current version of ISAF Offshore Special Regulations of the ISAF Oceanic & Offshore Committee.

7.3 ERS shall apply except where deleted or amended by IRC Rules or Appendix 1.

7.4 Any dispute arising out of the administration of the IRC Rules by the Rating Authority or a Rule Authority shall be referred to the IRC Policy Steering Group referred to in Rule 4.4 - which shall allow the applicant to be given a fair opportunity to make his case either in writing or in person (as the IRC Policy Steering Group may determine). The decision of the IRC Policy Steering Group shall be final.

8 RATING CERTIFICATES

8.1 All IRC ratings will be calculated by and rating certificates issued by the Rating Authority. Rule Authorities may be authorised to print rating certificates under licence.

8.2 Each **boat** racing under IRC shall hold a current valid IRC certificate. A **boat** shall not hold more than one valid IRC rating certificate at any time except as permitted by Rule 8.2.1.

8.2.1 A **boat** may additionally hold a separate short-handed certificate. This short-handed certificate shall be valid only for racing in classes, or divisions of classes, for no more than 2 ***crew***, included in a Notice of Race. The short-handed certificate will be clearly identified and shall only vary from the primary certificate in respect of, **mainsail**

widths, headsail dimensions, single furling headsail allowance, the use of stored power, SPA, STL, **spinnaker pole/bowsprit**, **moveable ballast** and **variable ballast**. A boat holding a shorthanded certificate may use only that certificate for races for no more than 2 **crew**.

8.2.2 Issue of any new rating certificate automatically invalidates the old one.

8.2.3 A copy of the current rating certificate(s) shall be kept on board the **boat**.

8.3 An IRC certificate is valid for racing under Part C, IRC, advertising permitted and Part D, IRC, advertising not permitted.

8.4 Rating certificates will be issued with the heading of the Rule Authority and any sponsorship as appropriate.

8.5 An ENDORSED IRC certificate is one for which the data on the certificate has been audited and if necessary verified by measurement, or other methods in accordance with current published standards. An owner may apply to their Rule Authority to have an IRC rating certificate Endorsed. The Rule Authority will inform the owner of any measurement, including weighing, or other checks required prior to issue by the Rating Authority of a certificate carrying (irrespective of certificate print language) the notation ENDORSED under the IRC Rating Authority stamp (see also Rule 13).

8.6 On IRC certificates for all **boats** rated for one or more downwind sails (see Rule 21.6), a second, non spinnaker, TCC is printed. The non spinnaker TCC shall be valid only for races for which the Notice of Race includes a non spinnaker division or class. Owners shall declare their intention to enter such a non spinnaker class using the second TCC a minimum of seven days before the race, or first race if a series of races, and shall not then be permitted to race using a spinnaker for the race or races. This Rule may be amended by Notice of Race.

8.7 The Rating Authority may at its sole discretion re-issue or may refuse to issue or to re-issue an IRC certificate if in its sole opinion Rule 2.5 may be infringed, or for any other reason. No reason need be stated.

8.8 Change of ownership and/or any changes in sail number will automatically invalidate the rating certificate.

8.9 Physical changes which might affect the performance of the **boat** shall be declared and may invalidate the rating certificate.

8.10 Rated Dimensions

8.10.1 Values stated on certificates for LH, **Hull Beam, Draft**, x, P, E, J, FL, MUW, MTW, MHW, LLmax, HHB, HSA, PY, EY, LLY, LPY, SPA and STL are maximum values.

8.10.2 Values stated on certificates for **Boat Weight**, BO, h, SO, y, and **Internal Ballast** are minimum values.

8.10.3 If during **Equipment Inspection** by an **Equipment Inspector**, or during measurement carried out under Rule 13.6, any rated dimension is found to exceed a maximum value or to be less than a minimum value, then the **boat** is not in compliance with her certificate.

8.10.4 Attention is drawn to Rule 13 and to RRS 78, Compliance with Class Rules; Certificates.

8.11 When the Rating Authority has reasonable evidence that a **boat** does not conform to its certificate, or that there has been a breach of these Rules, or that there has been an error in the determination of the rating, or that there has been a gross breach of the IRC Rules or of good manners or sportsmanship, the certificate may (at the absolute discretion of the Rating Authority) be withdrawn without compensation and the owner shall be informed in writing.

8.12 Certificates will normally be valid on payment of the appropriate fee for the current calendar year only, but at the discretion of the relevant Rule Authority, and with agreement from the Rating Authority, the year may run from 1 June to 30 May of the following year.

8.13 Irrespective of where a **boat** is registered, she shall apply for her IRC certificates to the appointed Rule Authority in the country in which she predominantly races. Exceptionally, with the agreement of the Rating Authority, she may apply through another Rule Authority.

8.14 On request and payment of a fee, and in accordance with any administrative rules published by the Rating Authority, the Rating Authority may supply a copy of a **boat**'s valid or immediately expired IRC certificate, including owner name, to any interested party.

9 RATING REVIEW

Rule 9 does not apply to **equipment inspection** at an event.

9.1 Review of a **boat**'s rating may be requested at any time by the owner who should submit a review request through their Rule Authority to the Rating Authority. A fee may apply.

9.2 Anyone who has a valid interest in a **boat**'s certificate may also request rating review from the Rating Authority, by submitting a review request through their Rule Authority to the Rating Authority. A fee may apply. The owner of the **boat** subject to review will be requested to file a reply as soon as possible.

9.3 The Rating Authority may also review a rating at any time.

9.4 Review shall be based on all the available evidence. Where necessary, rated data shall be re-measured by an authorised measurer. The decision of the Rating Authority on any review shall be final.

9.5 For series produced **boats**, the rated data may have been standardised by the Rating Authority. Standard data shall not be subject to third party review or protest. A rating review may be requested by the manufacturer or the class association of a series produced **boat**. Modifications to standard data shall be declared by the owner.

9.6 Where the TCC is reviewed and found to be not more than 0.005 greater than before, the contested rating shall be valid up to the date that the request for review was lodged with the Rating Authority, or in the case of a protest from the time that the protest was lodged with the race committee, except that if Rule 8.9 applies then from the date of the change. This Rule may be amended by Notice of Race only to the extent that the 0.005 limit may be reduced.

9.7 Where the TCC is reviewed, either as a result of a rating review or a protest, and found to be more than 0.005 greater than before, the contested certificate is invalid from the date of issue.

9.8 In either case where the TCC is reviewed, the certificate becomes invalid if any re-measurement which increases the **boat**'s rating differs from the measurement shown on the certificate by more than 1% of: P, E, STL, LH, LWP, **Hull Beam**, **Draft**, FL, LLmax, J, MHW, MTW, MUW, (see Appendix 1, Measurement Definitions & Abbreviations); by more than 2% of SPA or HSA; by more than 5% of y, x, h or HHB; or by 5% or 200 kg, whichever is the less, in respect of weights; or if specific detail is clearly in error.

9.9 Following review and re-measurement, a new certificate may be issued which may be back-dated to the date that any erroneous data was supplied.

9.10 The owner of a **boat** requesting review of his own **boat**'s rating is liable for all measurement and rating costs. In all other cases, unless as a result of review a **boat**'s certificate is invalidated under Rules 9.7 or 9.8, the person requesting the review shall pay measurement and rating costs unless the Rating Authority orders otherwise.

10 RATING PROTESTS

10.1 As permitted by the RRS, a rating protest may be submitted to a protest committee. A protest committee may refer the matter to the Rating Authority with the appropriate fee.

10.2 In the event of protest, the **boat**'s rated data may be re-measured by an authorised measurer.

10.3 A **boat** whose certificate is invalidated as a result of an error or omission by a Rule Authority or by the Rating Authority, of which the **boat** could not reasonably have been aware, may be penalised at the discretion of the protest committee. Additionally, a protest committee may order that races scored using the invalidated certificate shall be re-scored using the corrected TCC.

10.4 A **boat** whose certificate is invalidated in accordance with Rule 9.6 may be penalised at the discretion of a protest committee. Additionally, a protest committee may order that races under its jurisdiction scored using the invalidated certificate shall be re-scored using the corrected TCC.

10.5 Subject to the RRS, when a **boat** is penalised by a protest committee as a result of her certificate being invalidated under Rules 9.7 or 9.8, her owner shall be liable for measurement

and rating costs unless the protest committee orders otherwise. In all other cases, the protestor shall be liable for measurement and rating costs.

10.6 When as a result of an action in a race or series, or the withdrawal of a certificate by the Rating Authority, a **boat**'s rating is reviewed and its TCC changes, the **boat**'s Member National Authority may be requested by the Rating Authority to investigate the circumstances and report its findings to the Rating Authority.

11 CHANGES TO CLASS RULES

11.1 Notice of race may vary the requirements of IRC Rules 8.6, 9.6, 14.1, 15.1, 21.1.5 (d) (e) and (f), 21.8.4, 22.4. No other IRC Rules may be amended.

12 UNITS OF MEASUREMENT AND CORRECTED TIMES

12.1 Measurements shall be taken in units of the metric system. Sail measurements shall be taken in metres to two decimal places. All other linear measurements shall be taken in metres to three decimal places and rounded to two decimal places for input. Weight shall be taken to the nearest kilogram except in the case of **boat weight** which shall be to the nearest 10 kilograms. Normal mathematical conventions shall apply, with 0.5 rounding up. Full calculated values will be carried forward to subsequent calculations. Final ratings shall be rounded to three decimals places.

12.2 The IRC rating is calculated as a Time Corrector (TCC) to three places of decimals. Corrected time for each **boat** is calculated by multiplying its elapsed time by its TCC. Corrected times shall be rounded to the nearest second with 0.5 seconds rounding up.

13 MEASUREMENT AND COMPLIANCE

13.1 Measurement data shall be obtained by direct measurement or derived from another rating certificate, whenever possible.

13.2 Measurements shall be taken in accordance with ERS Part III, Measurement Rules.

13.3 The accuracy of measurements supplied shall be the owner's responsibility. An IRC measurement service is available on application to a boat's Rule Authority.

13.4 It is a breach of the Rules of IRC for any owner or individual to intentionally supply false information. Attention is drawn to Rule 8.7 and to RRS 69, Allegations of Gross Misconduct.

13.5 The Rating Authority will use the data supplied by a Rule Authority as a basis for rating but reserves the right to overrule specific data or to standardise the dimensions of a class of production **boats**.

13.6 The Rating Authority or a boat's Rule Authority may require a **boat** to be submitted for measurement at any time without giving reasons. Measurement will be undertaken by authorised measurers of the Rating Authority. A new certificate will be issued by the Rating Authority based on the new measurement data.

13.7 In the particular case of a **boat** issued with a one-design certificate, as noted on the certificate, the rating requires compliance with one-design class rules. In the event of conflict, IRC Rules shall take precedence. See also Rule 22.4.1.

14 SAIL NUMBERS

14.1 Each **boat** shall hold a sail number as prescribed by its Member National Authority. Sail numbers shall be displayed in accordance with RRS 77, Identification on Sails. This Rule may be amended by Notice of Race.

15 MANUAL POWER

15.1 RRS 52, Manual Power, and ERS B.5 shall not apply. This Rule may be amended by notice of race.

15.2 (a) The use of stored power for the hoisting of **mainsails**, or the reefing or furling of **sails** need not be declared.

(b) **Boats** using stored power solely for the adjustment or operation of **backstays** shall declare this to the Rating Authority.

(c) **Boats** using stored power for the adjustment or operation of **running rigging** other than as noted in rules 15.2(a) & (b) shall declare this to the Rating Authority.

Part C IRC, advertising permitted

16 ADVERTISING

16.1 Advertising may be displayed in accordance with ISAF Regulation 20, Advertising Code.

17 BOAT WEIGHT

17.1 **Boat Weight** is measured in the following measurement condition:

17.1.1 Dry.

17.1.2 Fully rigged with all spars (including **spinnaker pole**(s) and jockey pole (if any)), **standing rigging**, **backstay**, **running backstays** and **checkstays**, **halyards**, mainsail and mizzen **sheets**, and vang(s).

17.1.3 Main engine installed, or outboard engine aboard in stowed position.

17.1.4 Batteries and fitted berth cushions on board in their normal positions if carried while racing. These items will be noted on the **boat**'s certificate.

17.1.5 All permanent fixtures and fittings and items of accommodation whether detachable or not, including washboards, bunk and floorboards and saloon table (if fitted for racing) on board in their normal positions.

17.1.6 Standard fit out if rated to class standard data.

17.2 The following items shall not be on board for measurement condition:

17.2.1 **Sails**, headsail and spinnaker **sheets** and **spinnaker guys**, spare **standing rigging** and **running rigging**.

17.2.2 Fuel, water and the contents of any other tanks. Gas bottles shall be removed.

17.2.3 Food, cooking and catering utensils.

17.2.4 Anchors, chains, warps, mooring lines and fenders.

17.2.5 Clothing, bedding and personal effects.

17.2.6 All removable safety equipment.

17.2.7 Tools and spare parts.

17.2.8 Loose gear.

17.2.9 Portable electronic equipment not permanently attached to the boat.

17.2.10 **Crew**.

17.3 When for practical reasons it is not possible to remove all items and equipment (e.g. fuel), it is acceptable to deduct the weight of these from the gross weight. The Rating Authority reserves the right to refuse such data when inadequate detail is supplied.

17.4 The Rating Authority will calculate the **boat weight** of an un-weighed **boat** based on information contained on another rating certificate, designer data or from any other source.

17.5 In the absence of other information, **boat weight** may be calculated by deduction of the items detailed by Rule 17.2 from a **boat**'s sailing displacement or sailing weight.

18 OVERHANGS AND DRAFT

18.1 Measurements shall be taken with the boat in measurement condition. The measurement points for various configurations of **boats** are shown on the diagrams for hull shapes and are defined in Appendix 1. The dimension y shall also be supplied and dimensions h and x if appropriate.

19 HULL APPENDAGES

19.1 Full details of a **boat**'s **hull appendages** shall be supplied to the Rating Authority at the time of rating application.

19.2 Any keel fin fairings with a nominal density, including any cavities and/or core material, significantly lower than the main structural elements of the keel fin shall be declared. For the purpose of this rule, a keel fin fairing does not include surface fairing, filling and painting materials up to a total thickness of 10 mm, measured normal to the local surface of the keel fin.

19.3 Drop keels, **centreboards**, **bilgeboards** and other moveable **hull appendages** shall be declared. Unless fixed down while racing, drop keels will be rated as moveable **hull**

appendages.

19.4 In the construction of **hull appendages**, no material with specific gravity greater than 11.3 is permitted.

19.5 **Boats** including material in their **hull appendages** with specific gravity greater than 11.3, and with Age Date of 2005 or earlier, and holding a valid IRC certificate on 31st December 2005 are exempt from Rule 19.4. Apart from routine maintenance, any such **boat** changing the quantity of material of specific gravity greater than 11.3 shall comply with Rule 19.4 and will not subsequently be eligible for exemption from compliance with Rule 19.4.

20 ENGINE AND PROPELLER

20.1 **Boats** will be rated with either:

20.1.1 No engine.

20.1.2 Outboard engine (i.e. an engine where the propeller may be removed from the water while racing).

20.1.3 Inboard engine, including strut drive and stern-drive configurations. Propeller type shall be declared at the time of rating application.

20.2 Inboard engines shall be capable of producing a minimum speed of 1.8*LWP^0.5 knots. Outboard engines shall be securely fastened in their normal stowage positions for racing.

21 RIG AND SAILS

21.1 General

21.1.1 Single and twin masted rigs only may be rated under IRC.

21.1.2 'Cat' rig is defined as a **rig** where no **sails** are set forward of the **mast**(s) when sailing to windward.

21.1.3 'Gaff' rig includes square, spritsail and other similar rig configurations.

21.1.4 Mizzen staysails shall be declared.

21.1.5 There is no limitation on the number or type of **sails** on board while racing under IRC except:

(a) the limitation on spinnaker numbers (see Rule 21.6.2).
(b) the limitation on **sails** containing exotic materials (see Rule 21.4).
(c) the limitation on headsail numbers for **boats** rated with a single furling headsail. Except in the cases of significant damage or storm and heavy weather sails, **boats** claiming a rating allowance for using a single roller furling headsail shall use the same headsail for all races in any series of races. (see Rule 21.8.1)
(d) during a regatta run on consecutive days, including any lay days, the **sails** on board shall remain the same and be on board for all races. This Rule may be amended by Notice of Race.
(e) a spare **mainsail** may be on board but may not be used as a racing replacement, either during a race or during a regatta run on consecutive days, including any lay days. This Rule may be amended by Notice of Race.
(f) exceptionally, in the case of significant damage or loss, **sails** may be replaced with similar **sails**. A Notice of Race may require that boats obtain permission from the Race Committee before replacing a **sail**. This Rule may be amended by Notice of Race.
(g) **sails** shall be set in close proximity to the **boat**.

21.1.6 (a) Adjustment or detachment of forestay and/or **shrouds** including diagonal and jumper shrouds, or movement of the **mast** at the foot or the deck while racing is not permitted except:
(i) in the case of a **boat** without **running backstays**, **checkstays** or adjustable **backstay** when the forestay may be adjusted but not detached.
(ii) in the case of Dayboats explicitly permitted by their own class rules to adjust or detach the forestay and **shrouds** while racing.
(iii) as permitted by Rule 21.1.6 (b).

(b) A **boat** fitted with or carrying on board systems, to adjust the forestay or the mast foot while racing shall declare this to the Rating Authority. Locked conventional turnbuckles need not be declared. Unless the **boat** declares

that such systems will not be used while racing, the **boat** may then adjust the forestay and the mast foot vertically and/or longitudinally while racing, but shall not detach the forestay.

21.2 Rig Factor

21.2.1 Rig factor (RF) is an assessment by the Rating Authority of the rig and sail features of the **boat** and their character and efficiency when compared to a basic cruising configuration with substantial spars and basic rig controls.

21.2.2 RF above unity may be applied for: fractional, racing and lightweight rigs, high aspect ratio and efficient plan forms, wing and double luff **sails**, specialised **sail stiffening**, large headboards/cranes, permanently bent or highly controllable **spars**, hi-tech rigging, exotic rig materials, advanced winch and deck gear arrangements, flush/efficient deck design, and any other feature which increases sailing efficiency that is not already rated through the rated dimensions.

21.2.3 RF below unity may be applied to less efficient **rigs** and **sail** plans, cruising furling **sails**, motor sailers with large deck houses, cruisers with weight/windage aloft or with basic deck gear only, or any other feature which reduces sailing efficiency that is not already rated through the rated dimensions.

21.2.4 Full **rig** details shall be supplied at the time of rating application. The Rating Authority reserves the right to apply a high rig factor until full detail is supplied.

21.3 Sheeting of **Sails**, **Sail** Definitions, **Bowsprits** and **Spinnaker Poles**

21.3.1 No headsail or spinnaker may be sheeted from more than one point on the **sail**.

21.3.2 All **sails** shall be set and sheeted in accordance with RRS 50, Setting and Sheeting Sails, with the following additions.

21.3.3 RRS 50.3(a) is amended to the extent that a spinnaker or a headsail may be tacked to a **bowsprit**.

21.3.4 RRS 50.3(c) is deleted and replaced by:

A headsail may be sheeted or attached at its **clew** or **tack** to a **spinnaker pole** or **whisker pole**, provided:

(a) that a spinnaker is not set,
(b) that the HSA and LLmax dimensions do not exceed the rated values,
(c) that for a **boat** rated with no spinnakers that a **whisker pole** is declared,
(d) that the pole length measured as spinnaker tack length (STL) does not exceed the rated STL.

A second headsail may be set simultaneously.

21.3.5 If a spinnaker can be tacked to a **bowsprit** in front of the forestay, the **bowsprit** will be considered to be a **spinnaker pole** and STL measured as the greater of the length of the longest **spinnaker pole** or to the extremity of the **bowsprit**.

21.3.6 **Boats** will be rated according to whether they use a **spinnaker pole** and/or a **bowsprit** according to the following configurations:

(a) No **spinnaker pole** (spinnaker tacked on deck) or a centre line **bowsprit** only.
(b) An articulating **bowsprit** only.
(c) A **spinnaker pole** or poles either with or without a **bowsprit**.

21.4 Sailcloth

21.4.1 Sailcloth containing exotic materials (at present none) will carry an additional rating tax.

21.4.2 Sailcloth containing exotic materials shall be declared on initial application for rating, revalidation, or when amending a **boat**'s sail inventory.

21.4.3 Only specific **sails** containing exotic materials which have been declared and noted on a **boat**'s certificate may be used while racing under IRC.

21.5 Mainsails

21.5.1 Unless declared as greater under Rule 21.5.2 or lesser under Rule 21.5.3, MUW, MTW, and MHW will be assumed to be 0.22*E, 0.38*E and 0.65*E respectively.

21.5.2 MUW measurements in excess of 0.22*E, MTW measurements in excess of 0.38*E,

and MHW measurements in excess of 0.65*E shall be declared.

21.5.3 MUW measurements less than 0.22*E, MTW measurements less than 0.38*E, and MHW measurements less than 0.65*E may be declared. MUW, MTW and MHW will be shown on the **boat's** certificate as the maximum permitted values.

21.6 Spinnakers

21.6.1 (a) **Boats** carrying more than three spinnakers in total on board while racing will incur an increase in rating.

(b) A Rule Authority may prescribe that for races under its jurisdiction requiring compliance with ISAF Special Regulations Category 3 or above, a **boat** may carry one more spinnaker than shown on her current IRC certificate of area not greater than rated SPA without an increase in rating. Any such prescription shall be referenced in a Notice of Race.

21.6.2 Spinnaker area (SPA) shall be calculated from:

SPA = ((SLU + SLE)/2) * ((SF + (4 * SHW))/5) * 0.83

SLU, SLE, SF and SHW of the largest area spinnaker on board shall be declared. The calculated area of this spinnaker will be shown on a **boat**'s certificate as the maximum permitted SPA.

21.7 Headsails

21.7.1 Headsail area (HSA) shall be calculated from:

HSA = 0.125 * LL * (2 * LP + 3 * HHW + 2 * HTW)

In the calculation of HSA, if HHB is greater than the larger of 0.09m or 0.008*LL, then 5 times the excess shall be added to LL in the calculation of HSA.

21.7.2 The following shall be declared. LL, LP, HHW, HTW, LLmax and HHB.

21.7.3 HSA, LP, HHW, and HTW of the largest area headsail, LLmax and HHB (or the larger of 0.09m or 0.008*LL if that is greater) will be shown on the **boat**'s certificate. HSA, LLmax and HHB are the maximum permitted values.

21.8 Furling Headsails

21.8.1 **Boats** may apply for a rating credit for using a single roller furling headsail. To be eligible:

(a) A **boat** shall be fitted with a complete headsail furling system including at least a drum, furling headfoil, and top swivel.

(b) Rated LP shall be greater than 1.3*J. Exceptionally, this rule shall not apply to **boats** of LH greater than 30.5m and with IRC DLR greater than 60.

(c) Only a single headsail shall be used while racing, whose HSA may not be less than 95% of rated HSA except that additionally storm jibs (see Appendix 1, IRC Measurement Definitions & Abbreviations) may be used.

21.8.2 A **boat** may declare that she may alternatively use a heavy weather jib (see Appendix 1, IRC Measurement Definitions & Abbreviations). Provided that she complies with Rule 21.8.1(a) and (b), she will remain eligible for the rating credit but at a reduced rate.

21.8.3 Except in the cases of significant damage or storm jib and/or heavy weather jibs as appropriate, the same headsail shall be used for all races in any series of races.

21.8.4 Any other headsail may be on board. This Rule may be amended by Notice of Race.

22 EQUIPMENT AND LOADING

22.1.1 The rated parameters assume that the **boat** is fitted out at least to the production specification and/or to the condition when last measured/inspected. Detachable items (such as but not limited to bunk cushions) permitted by Rule 17 to be aboard for measurement shall be carried in their normal positions while racing. If another rating certificate is being used as the basis for data then any changes since the issue of that certificate shall be notified to the Rating Authority.

22.1.2 For races requiring compliance with Offshore Special Regulations Category 4 only (or local equivalent), a Notice of Race may state that boats rated with bunk cushions on board may remove the bunk cushions. No compensating weight need be carried.

22.2 Hull Factor

22.2.1 Hull factor (HF) is an assessment by the Rating Authority of the features of the **boat** and their character and efficiency when compared to a basic cruising configuration.

22.2.2 Stripped out interiors, the use of light and hi-tech structures and/or materials, removal of furniture or other fitted equipment, etc. may lead to the application of higher than standard hull factor to compensate for potential increase in performance. Such features shall be declared to the Rating Authority.

22.3 **Moveable Ballast** and **Variable Ballast**

22.3.1 A **boat** may request permission from the Rating Authority to use **moveable ballast** and/or **variable ballast** for the purpose of increasing stability. The Rating Authority will generally only grant permission to **boats** specifically and originally designed to carry **moveable ballast** and/or **variable ballast** and may deny permission without giving any reason. RRS 51, Moving Ballast, and RRS 52, Manual Power, are modified in respect of **moveable ballast** and/or **variable ballast** systems to the extent required by this class Rule.

22.3.2 Any such system shall be declared to the Rating Authority.

22.3.3 There is no limit to the static heel angle with ballast tanks fully filled on one side of the **boat** or with **moveable ballast** moved fully to one side. For **boats** with **variable ballast**, the maximum weight of water that can be carried on each side of the **boat** shall be declared. For **boats** with **moveable ballast**, the maximum static heel angle in the **boat weight** condition (see Rule 17) with the ballast moved fully to one side shall be declared. A physical, mechanical limit shall be fitted to **moveable ballast** to prevent it being moved further than the position for the declared static heel angle. Such a system shall not rely on sensors or measurement to prevent the declared static heel angle being exceeded unintentionally.

22.4 Crew Number/Weight

22.4.1 **Boats** rated as one-designs, as noted on the **boat**'s certificate, shall conform with their one-design class rules in respect of **crew** number/weight limitations unless freed from this requirement by notice of race. See also Rule 13.7

22.4.2 The Crew Number printed on each boat's certificate shall not be exceeded or the crew weight shall not exceed 85kg multiplied by the Crew Number printed on the certificate.

22.4.3 Rule 22.4 may be amended by Notice of Race.

22.5 Crew Classification

22.5.1 There are no rules on the classification of **crew** within IRC unless stated in a Notice of Race.

23 SEAWORTHINESS AND SAFETY

23.1 The issue of a rating certificate does not imply that a **boat** is necessarily of satisfactory design, safe or seaworthy. See Rule 3.

23.2 Race committees may impose limits for race entry on safety grounds at their discretion. An SSS number, specific to the **boat**, and when data is available IRC/ISO STIX, AVS, and IRC/ISO Design Category will be printed on each **boat**'s certificate for the guidance of owners and race organisers.

24 DAYBOATS

24.1 A Dayboat will be designated by 'Dayboat' printed on the certificate.

24.2 A Dayboat shall be self righting at 60^0 of heel.

24.3 The following items shall be carried by a Dayboat when racing under IRC:

24.3.1 A bilge pump and bucket.

24.3.2 An engine or two paddles or a pair of oars.

24.3.3 One anchor and suitable warp.

24.3.4 A compass.

24.3.5 One life jacket and whistle for each **crew** member.

24.3.6 Two red hand flares.

Part D IRC, advertising not permitted

25 RULES

25.1 With the exception of Rule 16, Advertising, the IRC Rules Part C shall apply.

26 ADVERTISING

26.1 Competitors' advertising displayed on **hulls**, **spars** and **sails** is restricted to advertising permitted by ISAF Regulation 20, Advertising Code, paragraph 20.7 only.

APPENDIX 1 IRC Measurement Definitions and Abbreviations

Measurement Note: ISAF Equipment Rules of Sailing (ERS) Part II, Definitions, shall apply to measurement except as stated by IRC Rules or this Appendix. Measurements shall be taken in accordance with ERS Part III, Measurement Rules, Section H.

Terminology: A term used in its defined sense is printed in "**bold**" type if defined in the ERS. Any abbreviation given below is used in IRC Rules in its defined term unless specified otherwise.

Age Date — The year in which the **boat** was first launched, or the year in which the **boat** was re-launched following hull modification, whichever is the later.

Batten — Any material added to the **sail**, as either a removable element, permanent stiffening, or other contrivance, the purpose of which is to support and/or stiffen the **sail**.

BO — The longitudinal distance between the foremost point on the hull and the foremost point of the waterline.

Dayboat. — A Dayboat is defined as a **boat** which cannot meet any of Categories 0 to 4 of the Offshore Special Regulations. The Rating Authority reserves the right to re-classify any **boat** without stating a reason.

E — The **outer point distance** of a **mainsail** (or in the case of a **schooner**, a **foremast sail)**. The **outer limit mark** shall be permanently marked by a 25mm band of contrasting colour. If there is no band the measurement shall be taken to the aft end of the boom.

EY — The **outer point distance** of a **mizzen** (or in the case of a **schooner**, a **mainsail**). The **outer limit mark** shall be permanently marked by a 25mm band of contrasting colour. If there is no band the measurement shall be taken to the aft end of the boom.

FL — The forestay length measured from the forward end of J to the forestay **rigging point.**

Forestay — The ERS definition of **forestay** shall not apply. Forestay is defined as: : Permanently attached **rigging** providing forward support for a mast **spar**.

h — The vertical distance between the **waterplane** and the lowest point on the stem at a tangent of 45^0 to the longitudinal axis.

Headsail — RRS 50.4 shall not apply. Any **sail** tacked down forward of the foremost **mast** which does not meet the definition of a spinnaker. A headsail may be hoisted from above the forestay **rigging point**..

HHB — The widest **top width** of any headsail on board and which may be used while racing.

HHW — The **half width** of the largest area headsail.

HSA — The maximum permitted headsail area.

HTW — The **three-quarter width** of the largest area headsail.

HWJ — Heavy weather jib. A headsail of area not greater than 13.5% **foretriangle height** squared, and without reef points.

J — The longitudinal distance between the intersection of the fore side of the mast **spar**, extended as necessary, and the deck including any superstructure; and the intersection of the centreline of the forestay, extended as necessary, and the deck, or bowsprit **spar**.

LH — **Hull Length.**

LL	The **luff length** of the largest area headsail on board and which may be used while racing.
LLmax	The longest **luff length** of any headsail on board and which may be used while racing.
LLY	The longest **luff length** of any **mizzen** staysail.
LP	The **luff perpendicular** of the largest area headsail on board and which may be used while racing. For a **cutter rig,** LP is measured as the shortest distance from the aftmost **clew point** of any headsail when set on the centre line of the **boat**, to the foremost headsail **luff** which may be set simultaneously while *racing*.
LPY	The longest **luff perpendicular** of any **mizzen** staysail.
LWP	**Waterline length**. (LH – BO – SO).
Measurement Condition	As defined by Rules 17.1 & 17.2
MHW	The **half width** of the **mainsail**.
MTW	The **three-quarter width** of the **mainsail.**
MUW	The **upper width** of the **mainsail**, the **upper leech point** being the point on the **leech** equidistant from the **three-quarter leech point** and the **head point**.
P	The distance between the **mainsail** (in the case of a **schooner**, the **foremast sail) upper limit mark**, which shall be permanently marked by a 25mm band of contrasting colour, and the top of the boom when set at right angles to the **mast**, or the **mainsail tack point** whichever is lower, on the **mainmast** (in the case of a **schooner**, the **foremast**). If there is no band the measurement shall be taken to the top bearing surface of the halyard shackle. In the case of a gaff rig, the upper measurement point is the **peak point** of the **mainsail** or the **head point** of the topsail if on board.
PY	The distance between the **mizzen** (in the case of a **schooner**, the **mainmast sail) upper limit mark** which shall be permanently marked by a 25mm band of contrasting colour, and the top of the boom when set at right angles to the mast, or the mainsail tack whichever is lower, on the **mizzenmast** (in the case of a **schooner**, the **mainmast).** If there is no band the measurement shall be taken to the top bearing surface of the halyard shackle.
Rating Authority	As defined in rule 4.1.
Rule Authority	As defined in rule 4.1.
RORC	The Royal Ocean Racing Club
Series Date	The year in which the first **boat** of the class or production series was launched.
SF	The **foot length** of the largest area spinnaker on board.
SHW	The **half width** of the largest area spinnaker on board.
SLE	The **leech length** of the largest area spinnaker on board.
SLU	The **luff length** of the largest area spinnaker on board.
SO	The longitudinal distance between the aftmost point on the **hull** and the aftmost point of the **waterline**.
SPA	The maximum permitted spinnaker area.

Spinnaker	RRS 50.4 shall not apply. A spinnaker is defined as a **sail** set forward of the foremost **mast** with **half width** (measured as a spinnaker) equal to or greater than 75% of **foot length** and without battens.
STL	The length of the longest **spinnaker pole**, **whisker pole** or **bowsprit** measured on or near the centre line of the **boat** from the forward face of the mast **spar** to the extremity of the **spinnaker pole**, **whisker pole** or **bowsprit**, or the horizontal length from the forward face of the mast **spar** at deck level to the spinnaker tack point on deck projected vertically as necessary, whichever is the greatest.
Storm Jib	A headsail of area not greater than 5% **foretriangle height** squared, **luff length** not greater than 65% of **foretriangle height**, and not containing aromatic polyamides, carbon or similar fibres.
UNCL	L'Union National pour la Course au Large.
Wingspan	The maximum horizontal width in any transverse section of any wings attached to any **hull appendage**.
x	The horizontal distance between the **waterline** and the lowest point on the stem at a tangent of 45^0 to the longitudinal axis
y	The vertical distance between the aftmost point on the **hull** and the **waterplane**. In the case of a counter stern, the vertical distance between the aftmost point on the **hull** below the transom projected to the line of the aftmost point of the **hull**, and the **waterplane**.

END