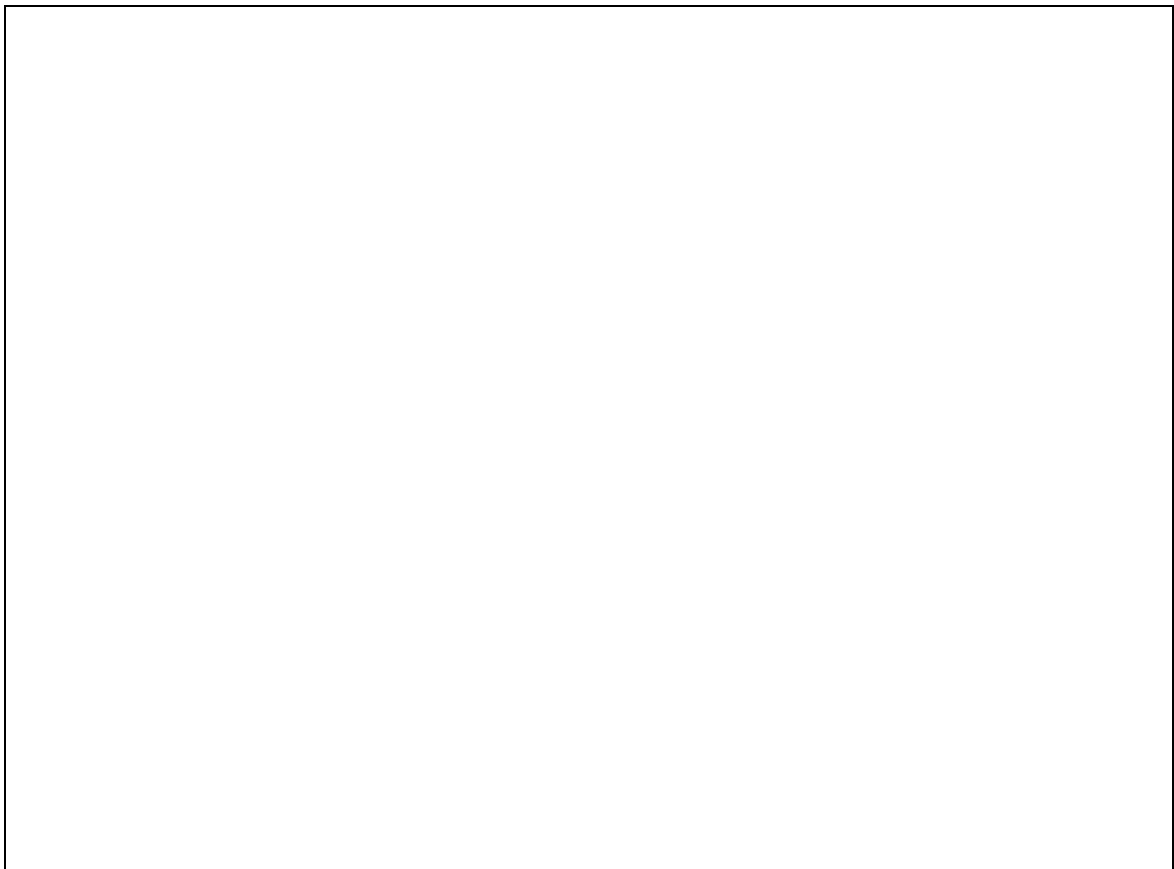


Nacra logo

ISAF logo

International
Nacra Infusion
Class Rules
2010



Line drawing of Nacra Infusion.

The Nacra Infusion was designed in 2003, has been sold in many countries throughout the world and applied for International status in 2010.

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Introduction.

The Nacra Infusion Class has been formed to support owners throughout the world with better racing and race support service in general. The concept is to ensure fair racing through a simple one-design manufacture that allows all sailors to complete fairly on the water and not feel obliged to continue to develop their gear to maintain a satisfactory position in racing fleets allowing for their own expertise.

Nacra Infusion hulls, hull appendages, tillers, rigs and sails must be produced by Nautical Sports bv or their licensed builders and sail makers, no alteration is permitted unless allowed for in Section C of these rules.

Owners and helms must be aware that compliance with rules in Section C is not checked as part of the manufacturing process.

Part 1. Administration.

Section A. General.

A1. Language

A1.1 The official language of the Nacra Infusion Class is English, and in case of dispute over translation the English text shall prevail.

A1.2 The word “shall” is mandatory and the word “may” is permissive.

A2. Abbreviations

A2.1	ISAF	International Sailing Federation
	MNA	ISAF Member National Authorities
	N.S. bv	Nautical Sports bv and their licensees
	INCA	International Nacra Class Association
	NNCA	National Nacra Class Association
	ERS	Equipment Rules of Sailing.
	RRS	Racing Rules of Sailing.

A3. Authorities

A3.1 The international authority of the class is the ISAF who shall co-operate with the N.S. bv and the INCA in all matters concerning these **Class Rules**.

A3.2 Accepting the statement in A3.1 above, the **certification authority** has the right to withdraw a **certificate** and shall do so if requested by the ISAF.

A4. Administration of the Class

A4.1 The Class is administered by the INCA in conjunction with the N.S. bv. The INCA may delegate functions to the NNCA where appropriate.

A4.2 In countries where there is not a NNCA, the functions can be managed by the INCA in agreement with the MNA.

A5. ISAF Rules

A5.1 These **Class Rules** shall be read in conjunction with the ERS.

A5.2 When the term is printed in “**bold**” (except headings) then the definition in the ERS applies, and when the term is printed in “*italics*” then the RRS shall apply.

A6. Class Rules variations

A6.1 Racing in Class events: ISAF Regulation 26.5(f) applies.

A7. Class Rule amendments

A7.1 Any submission for rule changes must be made in writing to the INCA who shall respond in a timely manner.

A7.2 Amendments to these **Class Rules** must have the approval of the ISAF in line with ISAF regulations.

A8. Interpretations of Class Rules

A8.1 Interpretations of these **Class Rules** shall be made in accordance with published ISAF practice.

A9. ISAF Building plaque and International Class fee

A9.1 The licensed **hull** builder shall pay the International Class fee to the ISAF.

A9.2 Having received the payment, the ISAF shall send the ISAF building plaques to the N.S. bv .

A10. Sail numbers

A10.1 Sail number are issued by the N.S. bv in accordance from requests made by the NNCA's or NMA's as appropriate..

Section B. Boat eligibility

For a **boat** to be eligible for *racing*, then it shall comply with this section.

B1. Class Rules compliance

B1.1 A **boat** shall be in compliance with these **Class Rules**.

B1.2 If it is alleged that a boat or part of its equipment falls outside the described standards, then the Race Committee shall be notified. The Class Measurer, or his agent, shall notify the N.S. bv, the NNCA and in course the INCA and make judgement using other Nacra Infusions as his guide in making this decision. The definitions in the ERS are to be used at all times, unless varied by Part II.

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Part II. Requirements and limitations

The **boat** and **crew** shall comply with the rules in Part II when *racing*. If there is any conflict with the **Class Rules** then Section C shall take precedence.

The Class Rules in Part II are **closed class rules**, therefore anything that is not specifically allowed in **Class Rules** is prohibited.

Section C. Conditions for racing.

C.1 General

C1.1 Rules

- a. RRS Appendix G. 1.3(d) shall not apply.
- b. RRS 50.4 shall be amended to read 75%
- c. Add to RRS 42.3, “a boat may repeatedly pump mainsail but only to release battens after tacking or gybing.”
- d. RRS 49.1 shall not apply.
- e. ERS Part 1, shall apply, “use of equipment”.

C1.2 Limitations

- (a) The Nacra Infusion shall only be raced with equipment supplied new or replacement by the N.S. bv except where otherwise allowed in these **Class Rules**
- (b) Where equipment other than made by N.S. bv it must be of similar size and weight and clearly performs the same function.
- (c) At all events at least ONE member of crew shall be a member of the INCA.

C.2 Advertising

C.2.1 Limitations

Any advertising must only be displayed in accordance with ISAF Category C. (See ISAF Regulation 20)

C.3 Crew

C.3.1 Limitations

- (a) The **crew** shall consists of two sailors
- (b) No **crew** members shall be changed during a regatta unless agreed in writing with the Race Committee.
- (c) The Race Committee shall consider any advantage that may give the **boat** , if this replacement will take place.

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C.4. Personal Equipment

C.4.1 Mandatory

(a) A **boat** shall be equipped with a personal floatation device for each **crew** member to the minimum standard of either the host country or the host event

(b) Weight jackets, or ballast of any kind are not permitted

(c) In accordance with RRS 43.1(b), the total weight of equipment worn by each **crew** shall not exceed 10kgs.

(d) A righting line of minimum of 10mm thickness and 4 metres in length shall be carried on the **boat** at all times.

C.4.2 Optional.

(a) Trapeze harness for each member of **crew**

(b) Other personal equipment

(c) Magnetic devices.

(d) Mechanical timing devices

(e) Electronic devices that provide timing, heading and heading memory but which do not receive or transmit data

(f) Water, food and clothing containers

(g) Emergency Positioning Indicating Radio Beacons (EPIRB) devices

(h). Towing line if required in Sailing Instructions.

(i) A paddle, fit for purpose if required in Sailing Instructions

(j) Wind indicator(s)

C.5 Boat

C.5.1 The total weight of the **boat**, ready to sail, weighed in a dry condition, shall be 180 kgs. Corrector weight of maximum of 7 kgs may be attached to the starboard side of the front beam and be detachable for checking

C.5.2 No basic **hull** structure may be altered

C.5.3 Alterations

(a) Holes no larger than the necessary size for the passing of lines may be made in any part of the **boat**

(b) Routine maintenance for minor repairs, filling, sanding, cleaning, polishing and waxing is permitted as long as the **hull** is in a similar condition as when new ie gelcoat

(c) No performance enhancing materials are allowed to be applied to the **boat**.

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C.6 Trampoline

C6.1 Limitations.

Only trampolines supplied by N.S. bv are permitted

C6.2 Hiking straps may not be adjusted while racing.

C6.3 Construction

- (a) Additional hiking straps are permitted
- (b) Storage pockets are permitted
- (c) Additional sail adjustment devices may be added to and fitted through the trampoline
- (d) Spinnaker bags are permitted

C.7 Hulls

C7.0 Parts.

C7.1 Mandatory

- (a) **Hull** shells
- (b) Front beam
- (c) Rear Beam
- (d) Trampoline

C7.2 General.

- (a) **Hulls**, beams and trampoline shall be original equipment supplied by N.S. bv
- (b) Any repairs have to comply with the **Class Rules**
- (c) Modifications, maintenance and repairs are permitted to include sanding, polishing, waxing BUT not any friction reduction materials.
- (d) Sail adjustment fittings may be added to the **hulls** but preventing any water ingress
- (e) For all boats built after 1st November 2009, **hulls** shall carry the ISAF plaques permanently placed on starboard transom
- (f) Non slip surfaces may be applied to the **hulls**
- (g) Foot loops, toe straps, trapeze gear, **crew** restraining lines may be fitted
- (h) **Daggerboard** retention systems may be added
- (i) Compass holders may be added excluding carbon
- (j) **Sail** calibration marks may be added
- (k) Further N.S. bv hatches may be added
- (l) Additional shims to reduce **daggerboard** movement are permitted

C7.3 Beams

- (a) The beams shall not be convex except for the necessary pre-bend to counteract mast loading
- (b) Beams may be fitted with sail adjustment fittings
- (c) Beams may have compass(es) fitted.

- (d) Any holes drilled shall only be as large as necessary for fittings

C8 Hull Appendages

C8.1 Parts

- (a) **Rudders**
- (b) **Tillers**
- (c) **Tiller** connecting bar
- (d) **Daggerboards/Rudder blades**

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C8.2 Maintenance and Repair

- (a) All hull appendages shall be original equipment supplied by NS bv
- (b) Sanding and filing to improve fit and function is permitted
- (c) Waxing and polishing is permitted as long as water friction materials are not used
- (d) Shims may be added to reduce or compensate for wear
- (e) Only two **rudder blades** and **daggerboards** may be used during an event, permission to change agreed in writing with Race Committee.

C9 Rig

C9.1 Replacement parts may be fitted but must be of equivalent or greater dimension than original

- (a) Only one set of **rigging** may be used during an event, permission to change agreed in writing with Race Committee.
- (b) Additional lines and fittings are permitted as long as they do not interfere with the integrity of the **boat**

C10 Bowsprit

C10.1 **Bowsprits** shall be supplied by the N.S. bv.

- (a) The **bowsprit** shall be in the longitudinal centreline of the **boat** and not be adjusted while sailing.
- (b) The wires holding the **bowsprit** cannot be shortened or lengthened
- (c) Additional **sail** adjustment devices are permitted
- (d) The end cap of the **bowsprit** shall always be smooth, round and blunt.

C11 Standing Rigging

C11.1 Standing rigging shall be supplied by the N.S. bv.

C12 Running Rigging

C12.1 Running rigging may be replaced from the original supplied by N.S. bv as long as it is equal to or greater than original gauge.

C13 Mast

C13.1 Masts shall be supplied by the NS bv.

- (a) Masts may have wind indicators, compasses and sail adjustments added as long as the water ingress and integrity of the mast is maintained
- (b) The limitation of downhaul (Cunningham) is at 8:1 and mainsheet is 10:1. Any increase on these ratios will void mast warranties.

C14 Sails.

C14.1 All sails shall be original equipment supplied by NS bv.

(a) Sails shall not be altered in any way, however routine maintenance and repair are allowed as long such actions do not alter shape or size from the original

(b) Advertising, in line with ISAF Regulation 20, is allowed as long as size and shape of sail are not altered.

- (c) Telltales are allowed, number and placement are optional
- (d) Only one set of **sails** may be using during an event, permission to change agreed in writing with Race Committee
- (e) The Class Insignia shall be displayed.
- (f) Numbering shall be inline with ISAF Appendix G.

Section D – Hull.

D1 Parts

D1.1

- (a) **Hull shells**
- (b) Front Beam
- (c) Rear Beam
- (d) Trampoline

D1.2 The **hulls** shall comply with the **Class Rules** applicable at time of manufacture and be manufactured by NS bv..

D1.3 The **hulls** shall not be altered in any way except those allowed in Section C of these **Class Rules**

D1.4 The hull shall carry the ISAF International plaque on starboard transom

D1.5 The trampoline shall be made of mesh and supplied by N.S. bv and must completely cover the area between the beams and the sheer lines

D2 Assembled Hulls

D2.1 The hull fittings shall comply with the **Class Rules** applicable at time of manufacturer and shall be manufactured by N.S. bv, additions and alterations are permitted as described in Section C of these **Class Rules**

D2.2 A NMA may appoint one or more persons at a manufacturer to measure and certify hulls in accordance with ISAF IHC guidelines

Section E – Hull Appendages

E1 Parts

E1.1

- (a) **Daggerboards**
- (b) **Rudders**

E1.2 The **hull** appendages shall comply with the **Class Rules** applicable at time of manufacturer and be manufactured by the N.S bv

E1.3 The **hull** appendages may not be altered in any way except those permitted in Section C of these **Class Rules**

E1.4 A NMA may appoint one or more persons at a manufacture to measure and certify hull appendages in accordance with ISAF IHC guidelines.

Section F- Rig

F1 Parts

- E.1.1 (a) **Mast**
 - (b) **Boom**
 - (c) **Standing Rigging**
 - (d) **Running rigging**
 - (e) **Bowsprit**

E.1.2 The **rig, spars** and fittings shall all comply with the **Class Rules** applicable at time of manufacture by N.S. bv

E1.3 The **rig** and **spars** may not be altered in any way except those that are permitted in Section C of the **Class Rules**

E1.4 Any changes of positioning on the **mast** of **boom, shrouds, trapeze fittings, diamond wires, sail** height are not permitted

E.1.5 The **mast spar** shall comply with the **Class Rules** at time of manufacture and shall be built by N.S. bv

E.1.6 The **boom spar, bowsprit, standing and running rigging** shall comply with the **Class Rules** applicable at time of manufacture by N.S. bv

Section G – Sails

G1 Parts

- G1.1 (a) **Mainsail**
 - (b) **Headsail (jib)**
 - (c) **Spinnaker**

G1.2 The **sails** shall comply with the **Class Rules** applicable at time of manufacture by N.S. bv

G1.3 A NMA may appoint one or more persons at a **sail** maker to measure and certify sails in accordance with ISAF IHC guidelines

G1.4 The **sail** maker shall indelibly mark (or label) each **sail** with the year and place of manufacture, together with serial number and type of cloth used.

G1.5. Cloths used in all **sails** shall comply with the Infusion approved cloth list

G1.6 The **headsail (jib)** shall be maximum 4.15 sqm, the **spinnaker** shall be maximum 21 sqm and the **mainsail** shall be maximum 15.25 sqm..