

# International NACRA Class Rules Pertaining to One Design Control as Amended for Australia

## 1. OBJECT OF CLASS RULES

International NACRA Class Catamarans are each a one design Manufacturer's class. The rules, official plans and specifications are intended to ensure that the catamarans of these classes are as nearly as possible the same as regards to shape and weight of hulls, daggerboards, rudders, spars and sails, and that the equipment is simple, functional and dependable. The ultimate intent is to encourage the use of only racing tactics and sailing skill to increase the boat speed.

## 2. PROTECTION OF INTERNATIONAL NACRA CLASS DESIGNS

**2.1** The hulls, daggerboards, rudders & stocks, standard rigging, spars, sails and battens are strictly controlled and must be supplied by the Australian manufacturer, while running rigging and associated fittings are not controlled, except as specified in these rules. Interpretations of these rules shall be given by NACRA Australia in consultation with the proper committees of the International Nacra Class Association (herein referred to as INCA) In the event of a conflict between rules official plans, measurement form and/or measurement diagram, the matter shall be referred to the National Body then INCA if required.

**Note:** To doubly guard against "loop hole destruction" of these fine International Class Catamarans and their potential for lasting racing pleasure, every deviation from past practice or precedent which is not specifically spelled out by plans, specifications or Design Rule is assumed illegal until approved and thus recorded in writing by those administering the Class Rules.

**2.2 Molds.** All molds, patterns and templates for the hulls, daggerboards and rudders shall be constructed solely by NACRA or builders licensed for that purpose by NACRA for NACRA.

**2.3 Alterations to Molds.** No alterations shall be made to any molds, official patterns or templates unless specifically authorised in writing by NACRA.

**2.4 Measurement of Molds.** Tolerances are given to allow for minor variations not inconsistent with good building practice and distortions through age. Intentional variations within these tolerances are prohibited. Each mold shall be measured prior to commencement of production and thereafter annually by a measurer approved by INCA.

## 3. HULLS, DAGGERBOARDS AND RUDDERS

**3.1** The manufacture of hulls, daggerboards and rudders is strictly controlled by NACRA. Licenses to build these components are issued by NACRA.

**3.2 Alterations to hulls, daggerboards and rudders.** Grinding, planning, sanding and/or application of putty, fillers and coatings of the outside surface is permitted provided that it is undertaken to fair local imperfections in these surfaces or to improve the surface finish provided that no part of the catamaran is thereby caused to be outside the measurement tolerances.

**3.3 Lightening of Hulls.** The hulls may not be lightened in any manner. A maximum of four (approved) inspection ports per hull may be added to the deck in the following manner:

- One aft of the rear beam
- Two between the 2 beams
- One in front of the main beam and a point not to exceed 1m in front of the main beam

Inspection ports requiring a deck aperture greater than 15.25cm for fitment will not be approved. Ports in front of the forward measurement may only be fitted with written permission of the manufacturer.

**3.4 Rudders.** The rudder and rudder stock assembly, including method of attachment to the transom is not to be modified. Rudders may be raked to attain helm balance. All rudders manufactured by NACRA are legal for racing on the boat they are fitted on from the manufacturer.

**3.5 Daggerboards.** The top of the daggerboard may not be inserted below the deck level. Handholds in the daggerboards may be added. The bottom of the handholds will then be considered the top of the daggerboard and may not be inserted below the deck level. The daggerboard rake may be adjusted but no part of the daggerboard or daggerboard well may be removed or added for the purpose of varying rake. All daggerboards manufactured by NACRA are legal for racing, on the boat they are fitted on from the manufacturer, except ones which require modification of daggerboard or well to accommodate them.

## 4. SPARS

**4.1 Construction.** The material, method of construction and design of the spars shall be in accordance with these rules and Official Spar Plan. The masts, spreaders, boom and beam sections shall be extruded from extrusion dies approved by NACRA. Masts, spreaders, booms and beams shall be fabricated solely by NACRA or builders licensed for that purpose by NACRA for NACRA.

**4.2 Masts.** The extrusion length and positions of the masthead, mast hound, jib halyard tang, diamond tangs, spreaders, spinnaker bale and mast base are not to be altered in any manner. For any NACRA fitted with a boom, the gooseneck and mast rotation spanner position may not be altered.

**4.3 Spreaders.** The spreader arm lengths may not be altered. NACRA adjustable rake spreaders are allowable on all models. The diamond wires are to be securely attached at the spreader ends.

**4.4 Booms.** The extrusion length and the method of attachment to the gooseneck are not to be altered. The mainsheet blocks are to be hung from permanently fixed bales or webbing straps where fitted. All other hardware is optional. No booms may be used on boomless designed rigs. Mainsail foot inhaulers may be used but must be attached to the mainsail clew and/or mast or boom

**4.5 Mainsheet Systems.** All classes can carry a maximum of 8:1 mainsheet purchase except the F18 models, which can carry 10:1.

**4.6 Main Beams.** The extrusion length, mast step and dolphin striker assembly are not to be altered. Additional internal and/or external hardware is optional but the total area of beam removed to accommodate such installations may not exceed 50cm sq.

**4.7 Rear Beam.** The rear beam may not be altered with the following exceptions. The traveller may be replaced by one of another design but it must be in a straight line and be mounted to the rear beam. The length must remain the same as original. Additional internal and/or external hardware is optional but the total area of beam removed to accommodate such installations may not exceed 50cm sq.

**4.8 Tillers, Tiller Tie Bar and Extension.** Tillers may be toed in and tiller tie bar shortened. Tiller extensions and designs are optional.

**4.9 Lightening of Spars.** No holes may be drilled, filed or cut into manufacturer supplied component, spar or casting for the purpose of reducing weight.

## 5. RIGGING

**5.1 Construction.** All standard rigging (including diamond wires) shall conform with the wire types and diameters as per supplied from the manufacturer. Running rigging and associated fittings, sizes, types and lengths are optional but the main halyard, jib halyard and trapeze wire diameters shall not be less than those supplied from the manufacturer. Rope tails on halyards are permitted. Jib halyards may not be led internally.

**5.2 Alterations.** Lengths of bridal wires and/or bridal foils are not to be altered. The forestay or its extension is to be attached at the bridal intersection. The forestay, shrouds, and diamond wires shall not be adjusted while racing.

## 6. SAILS AND BATTENS

**6.1 Construction.** The material, method of construction and design of the sails shall be in accordance with the sail plan. The sails shall be built for NACRA from patterns and specifications approved by NACRA. The battens shall be built for NACRA in accordance with plans and specifications approved by NACRA. A batten set may consist of any approved type for that model.

**6.2 Alterations.** The sails and jib battens are not to be altered in any manner save that a window may be installed in both main and/or jib but such installation must not alter sail shape. In the case of the 18sq and boomless sails only, one additional cringle (making 2 in total) may be added to facilitate increased purchase for main luff control.

**6.3 Luff Rope.** The entire mainsail luff rope must be in the mast luff groove except where the sail extends below the bottom of the extrusion and must be secured at each end of the sail.

## 7. CREW

**7.1 One Up Models.** The following models are to be sailed as "one up": 14sq, 16sq, 18sq, 17 Cat Rugged.

**7.2 Two Up Models.** The following models are to be sailed as "two up": 5.0, 5.2, 5.5, 5.7, 5.8, 17 Sloop, F18. The Nacra 4.5 and 430 can be sailed either one or two up.

### 7.3 Minimum Weights:

5.5	125kg
5.7	140kg

5.8	140kg
F18	150kg (as per F18 Class Rules)

**7.4 Crew Weights.** Minimum crew weight, where applicable, shall apply to Regional, State, National and International NACRA events. For weigh-in purposes crew must be bare footed and wear, as a maximum, clothing consisting of one pair of shorts and/or slacks/trousers and one T Shirt or similar. Normal undergarments may also be worn with the aforementioned clothing.

Minimum weight may be met by adding 75% of the weight back in the form of lead. Weight must be carried in the main beam. The maximum weight to be added shall not exceed 15kg. However crews carrying the maximum 15kg, yet still not attaining the minimum weight requirement, shall nonetheless be considered legal for racing. The F18 will conform to the crew weight requirements of the F18 International Class Rules.

**7.5 Crew Ballast.** No clothing, vests or containers may be carried while racing for the purpose of varying crew weight when so desired.

**7.6 Crew Changes and Helming.** Crews nominated for NACRA District, State, National or International events shall not be substituted unless such substitution is expressly permitted in writing by the race committee responsible for the said event. On two person racing craft, it is permissible for either nominated crew to helm or for'ard hand during races of a NACRA series.

**7.7 Safety Lines.** Devices (eg footstraps, safety lines) may be added to assist the trapezing crew. Hiking assist inboard is optional.

**7.8 Trapeze.** No continuous trapeze systems are allowed.

## 8. ELIGIBLE EQUIPMENT

**8.1** Equipment may be added or changed to conform with current or previously supplied factory series production equipment. All such equipment supplied by the factory for a particular model, shall be considered class legal.

**8.2** In the event of any part of a craft being damaged or suffering gear failure during a racing series the affected equipment (only) may be repaired or replaced. Repair or replacement may only be made using class legal equipment.

## 9. ALTERNATIVE PENALTIES

360-degree penalties apply to all NACRA events.

## 10. ADVERTISING AND SPONSORSHIP

ISAF Regulation 20 and YA Rule 80 will apply except for the following:

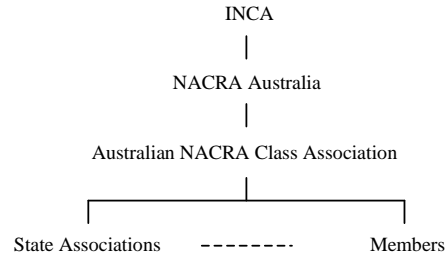
- The word NACRA along with a class designation may be displayed on each hull, rear beam and main beam to any size.
- A sponsors sticker on each hull shall not exceed 6000cmsq.
- A sticker, decal or patch of a sailing organization such as a yacht club or multihull organisation. A maximum of 4 different stickers may appear on each hull. Sticker size may not exceed 25 x 25cm.
- Any state or local park sticker required by law to sail.

## 11. WARRANTY

Modifications allowed by these class rules may not necessarily be covered by the manufacturers warranty.

## 12. COMMUNICATIONS, RULE INTERPRETATION AND AMENDMENTS

**12.1** Communications shall be conducted as follows:



**12.2** Valid questions regarding these rules must be mailed to the Australian NACRA Class Association. The Association will, if needed, refer to NACRA Australia.

**12.3** Suggestions for class rule amendments should be submitted to the Australian NACRA Class Association for appraisal and onforwarding to NACRA. These suggestions will be reviewed and, where appropriate, passed on to INCA to be accepted, rejected or modified by the governing body.

**12.4** Any change in these class rules will be announced in writing using communications described in 12.1

**12.5** Class rules may vary from one country to the next. Do not assume what applies in your country automatically applies in another. Remember a licensed NACRA builder may modify the INCA Class Rules provided they have been approved by INCA.

**12.6** For International Events the class rules will be approved by INCA and listed in the racing instructions.

**12.7** The rules contained herein shall not be altered or amended in any way without prior approval in writing from INCA using communications as described in 12.1

## 13. SAFETY EQUIPMENT

**13.1** It is recommended that buoyancy vests be worn at all times. Race organisers may stipulate compliance with relevant safety regulations as they see fit.

**13.2** All classes must carry a writing line of minimum 10mm diameter and 4.5m long and must be attached to the boat at one end for all NACRA events.

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