International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



# Amendment One

## A.3 AUTHORITIES

#### **Delete:**

# **Amendment Two**

### A.5 CLASS RULES CHANGES VARIATIONS

### Old:

A.5.1 World Sailing Regulation 10.11 applies.

### Amend to read:

- A.5.1 At World, Continental or Regional Championships the notice of race and sailing instructions may change the **class rules** only with the agreement of the IN15CA and WS.
- A.5.2 At National events the notice of race and sailing instructions may change the **class rules** only with the agreement of the IN15CA and the MNA.
- A.5.3 At any other class events, these **class rules** shall not be changed by the notice of race or sailing instructions

# **Amendment Three**

## A.6 CLASS RULES AMENDMENTS

#### Old:

A.6.1 In accordance with World Sailing Regulations, amendments to the **Class Rules** require the approval of World Sailing after their adoption by a simple majority vote of the members in a general meeting of the IN15CA held in accordance with its constitution.

#### Amend to read:

A.6.1 Amendments to the class rules shall be in accordance with the IN15CA constitution and WS according to WS Regulations.

# **Amendment Four**

A.8 International Class Fee and World Sailing BUILDING Plaque

Old:

- A.8.1 The licensed manufacturer shall pay the International Class Fee.
- A.8.2 World Sailing shall, after having received the International Class Fee for the hull, send the World Sailing Building Plaque to the licensed manufacturer.

A.3.2 Notwithstanding anything contained herein, the certification authority has the authority to withdraw a certificate and shall do so on the request of World Sailing.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



#### Amend to read:

- A.8.1 NS shall pay the International Class Fee.
- A.8.2 WS shall, after having received the International Class Fee for the hull, send the World Sailing Building Plaque to NS.

## **Amendment Five**

#### A.9 LICENSED MANUFACTURER

#### **Delete:**

A.9.1 Nacra 15 equipment shall only be manufactured by Nacra or any of its licensed manufacturers unless otherwise specified by these Class Rules.

## **Amendment Six**

#### A.10 SAIL NUMBERS & CLASS INSIGNIA

#### **Delete:**

A.10.1

- (a) The sail number shall correspond to the first three digits on the World Sailing plaque of the **hull** racing or the **hull** owned by any member of the crew, except where (b) applies.
- (b) Where the helm has finished in the top 3 in the preceding Nacra 15 World Championship the **sail** number shall be that place, single digit.
- (c) The national letters and the sail numbers shall be black in colour and applied according to the dimensions as defined in Appendix Section K immediately under batten number 4. The national letters and numbers shall comply with the RRS Appendix G except where specified otherwise in Class Rules Appendix K

# **Amendment Seven**

## C.1 GENERAL

#### C.1.1 RULES

#### Amend to add:

(a) RRS 49.1 is amended such that both members of the crew may use a trapeze. Add to RRS 49.1; both crew must maintain contact between the hull and their body when using their trapezes.

## C.2 CREW

C.2.1 LIMITATIONS

#### **Delete:**

(b) A crew member using a trapeze shall be in contact with the **hull** at all times except in the situation of accidental movement and/or a manoeuvre.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



# Amendment Eight

## C.1 GENERAL

C.1.2 LIMITATION

## **Delete:**

(a) The Nacra 15 shall only be raced with equipment supplied by a Nacra licensed manufacturer, except where otherwise authorized by these Class Rules

### Add:

(b) After **equipment inspection** at an event, **Modifications** permitted in these rules require the approval of the Event Technical Committee.

# Amendment Nine

## C.3 PERSONAL EQUIPMENT

C.3.1 MANDATORY

## Old:

- C.3.1 PERSONAL FLOATATION DEVICE
  - (a) Both crew shall wear a personal floatation device to the minimum standard ISO 12402-5 (Level 50), or USCG Type III, or AUS PFD 1, or EN 393, unless an alternative standard is prescribed otherwise in the Notice of Race or Sailing Instructions.
  - (b) The use of inflatable personal flotation devices is not permitted.
- C.3.2 PERSONAL SAFETY EQUIPMENT
  - (a) Each crew member shall carry a cutting device with a blade length of no more than 150mm.
  - (b) Each crew shall carry a approved whistle.
  - (c) The use of helmets (conform EN1385 standard) for both helm and crew is strongly recommended at all times whilst sailing.-

The Notice of Race may change this rule to make the use of these helmets mandatory.

## Amend to read:

## C.3.1 MANDATORY

- (a) For use:
  - (i) Whilst afloat, both crew shall wear a personal floatation device to the minimum standard ISO 12402-5 (Level 50), or USCG Type III, or AUS PFD 2, or EN 393, or equivalent. The use of inflatable personal floatation devices is not permitted
  - (ii) Each crew member shall wear a helmet that shall be to the minimum standard EN1385, EN1077, EN 966, ASTM 2020, Snell S98 or equivalent When Flag T is flown by the Race Committee Rule C 3.1 (ii) is suspended.
  - (iii) Each crew member shall carry a cutting device with a blade length of no more than 150mm.
  - (iv) Each crew member shall carry an ISO 12402-8 approved whistle.
  - (v) The maximum weight permitted of the trapeze harnesses shall be 2.4kg. This changes RRS 50.1 (b).
- C.3.2 OPTIONAL

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



- (a) For use:
  - (i) Each crew member may wear body protection. If the body protection also acts as a personal flotation device, it shall comply with Class Rule C.3.1 (a)(i)
  - (ii) Timing function carried or worn separately in one device, or with timing function combined with other approved functions and services in one device.
  - (iii) Race timing information may be transmitted by sound. The electronic/digital devices shall not deliver, store or correlate information in any way except as described in this section
  - (iv) Consumables.

# Amendment Ten

## C.5 PORTABLE EQUIPMENT

#### Old:

- C.5.1 OPTIONAL
  - (a) Timing devices.
  - (b) A maximum of one compass with bracket which may include a timing device. If electronic, only a compass with heading, heading memory and timing functions is permitted.
  - (c) Spare parts and tools.

(e) Camera recording equipment and attachments and/or race tracking equipment (GPS) where permitted by the IN15CA, Notice of Race and/or Sailing Instructions

#### Amend to read:

#### C.5.1 MANDATORY

- (a) For use:
  - (i) The righting line shall be led under the trampoline with both ends fixed to the Front Cross Beam at either sides of the hulls and held under tension by the use of shockcord and rings..
  - (ii) A towing rope of floating type shall be carried of a minimum of 8 mm diameter and 15 m in length.

#### C.5.2 OPTIONAL

- (a) For use:
  - (i) Boat heading function in one device using magnetic input. If digital/electronic, the device with magnetic input may combine and store boat heading direction together with wind shift detection and timing functions.
  - (ii) The device display letters and numerals shall be not more than 30 mm high and show only;
    - · boat heading (damping may be adjusted manually),
    - Calculated wind direction determined from manual input and adjustment of tacking angles manually for windshift detection),
    - time,
    - race timing information,
    - identification,
    - battery condition, system error, adjustment and calibration.
  - (iii) Magnetic compasses having no electronics

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



- (iv) Camera recording equipment and attachments and/or race tracking equipment (GPS) Notice of Race and/or Sailing Instructions.
- (v) Spare parts, tools, shockcord, rope, pulleys, hoops, and plastic balls.

# Amendment Eleven

## C.6 BOAT

### Old:

- C.6.1 MODIFICATIONS MAINTENACE AND REPAIR MODIFICATIONS
  - (a) The use of the following items is in general unrestricted, except that such items shall not be used in such a way as to create a fitting or extend a function of a permitted fitting:
    - (i) Shockcord, with a maximum diameter of 5 mm.
    - (ii) Adhesive tape.
    - (iii) Rings.
    - (iv) Protective coverings made of any soft material over exposed fittings-
    - (v) Plastic balls.
    - (vi) Blocks from Nacra Licenced suppliers, with a maximum sheave diameter of 29mm may be added provided it does not create a new function.
  - (b) To facilitate advertising, the application of vinyl, mylar or other plastic film over the surfaces of the **hull**, **sails** and **spars**, provided that the film shall not be specially textured or otherwise manufactured in a way that could improve the character of the flow of water or air inside the boundary layer.
  - (c) The righting line with a min diameter of 8mm and minimum length of 4100mm may be led under the trampoline with both ends fixed directly or indirectly via the front cross beam at either sides of the **hulls** and held under tension by the use of shockcord.

#### MAINTENANCE

- (d) Maintenance may be carried out provided that the essential shape, characteristics and function of the original component are not affected.
- (e) Any attachment for blocks may be replaced. Attachments for blocks shall be of substantially the same size and design as the original.

#### REPAIR

- (f) Repairs may be carried out provided that the essential shape, characteristics and function of the original component is not affected.
- (g) Fasteners may be replaced or added if the function of the fitting or part is not altered and

where required to facilitate a repair. The fitting maybe modified to accommodate slightly

larger fixings.

(h) Any fitting may be replaced with a fitting of same type and manufacturer in the same position or close as technically possible as the standard fitting and substantially of the same size and design

### Amend to read:

#### C.6.1 MODIFICATIONS

- (a) Shockcord with a maximum diameter of 5mm, rings, ropes of any length and diameter, plastic balls, and blocks with a maximum sheave diameter of 20mm may be added for the following functions.
  - (i) lift the cunningham block system and/or trapezes and/or pull out the jib sheet.

International Nacra15 Class Association Effective date: 2022-02-01

Status: Approved



- (ii) lead the jib sheets, trapezes, trapeze take up, tack line, righting line, rotation of the mast spanner, gennaker sheets, jib halyard, gennaker halyard, mainsheet, cunningham line.
- (iii) take up within the beams.
- (iv) dampen the tiller bar.
- (v) create mast rotation marks.
- (vi) Schockcord and ropes may also be used to secure items, to prevent catching of any part and in the place of washers.
- (b) Adhesive tape may be applied above the waterline.
- (c) Fasteners may be replaced or added and, where required to facilitate a **repair**, the fitting may be modified to accommodate slightly larger fixings with the following exception:
  - (1) Beam bolts may only be replaced by NS supplied bolts.
- (d) To facilitate advertising, the application of vinyl, mylar or other plastic film over the surfaces of the **hull**, **sails** and **spars**, provided that the film shall not be specially textured or otherwise manufactured in a way that could improve the character of the flow of water or air inside the boundary layer.
- (e) The righting line may be changed to a minimum diameter of 8 mm and a minimum length of 4100 mm.
- (f) Any cleat including integrated fairlead may be replaced with a cleat of similar size and design of any material.
- (g) Blocks and block systems and associated fittings may be replaced with blocks or block systems that must comply with the number of sheaves, dimensions, tolerances and remarks as stated in PART III- Appendices, with the following exceptions:
  - (i) The mainsheet system number of sheaves may be altered to achieve a maximum purchase of 10:1 and a minimum purchase of 8:1, only one ratchet block is allowed in the mainsheet system.
  - (ii) The four supplied blocks for the gennaker sheets, may be changed to any type of block with a minimum sheave diameter of 40mm and a maximum of 60mm.
- (h) The attachment fittings of the mainsheet blocks and mainsheet block system, from the strap on the **mainsail** and to the traveller car eye, may be replaced by attachment fittings of any length of ropes, shackles or other items and their combinations. Both ends of blocks and block systems including all attachment fittings, must remain in the straight line from the traveller car eye to the strap on the **sail**.
- (i) Any other attachment of blocks may be replaced by attachments of substantially the same size and design.

## C.6.2 **MAINTENANCE**

- (a) **Maintenance** for the **boat** is permitted with the following exception:
  - For hull appendages **maintenance** is only permitted as defined in rule C.8.2.

#### C.6.3 REPAIR

- (a) All **Repairs** require written approval unless stated otherwise in these Rules.
- (b) Approval may only be granted by the IN15CA Technical Committee. (measurer@nacra15class.com.)
- (c) Permission to undertake a **repair** during an event may be granted by the Event Technical Committee. The required written approval by the IN15CA Technical Committee may be granted after the event
- (d) **Repairs** shall not be used to reinforce an existing part and shall not alter the essential shape, characteristics and function of the original equipment.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



# **Amendment Twelve**

## C.7 HULL

## Old:

- C.7.1 MODIFICATIONS MAINTENANCE AND REPAIR The watertight integrity of the **hull** shall be maintained. MODIFICATIONS
  - (a) Additional non-skid tape may be applied to
    - (i) The upper deck areas in front of the front cross beam.
    - (ii) The cross beams.
    - (iii) The upper deck areas behind the rear cross beam.
  - (b) Stand-up springs or boots may be fitted between the gennaker blocks and the eye-straps on the **deck**.
  - (c) Two foot-straps may be fitted to each **hull**, aft of the rear cross beam.
  - (d) No holes shall be made in the **hull** or **deck** mouldings except;
    - (i) For the purpose making repairs.
    - (ii) To fit foot-straps.
  - (e) Re-finishing of the daggerboard **bearings** is only permitted to facilitate localised repair and provided that the essential shape, characteristics and function of the original component are not affected. An International Measurer or member of the Event Technical Committee may use templates to verify compliance with these limitations.

MAINTENANCE

(f) The outermost surfaces of the **hulls** may be cleaned and polished.

REPAIR

- (g) Repairs may be carried out provided such repairs are made in such a way that the essential shape, characteristics or function of the original are not affected.
- (h) The serial number shall remain legible.
- (i) Areas of damage repair may be filled, sanded and polished over.
- (j) Replacement of non-skid 'pro-grip' (type: EVA Foam 3mm thickness) of the same type to the deck moulding is permitted. The pro-grip shall be supplied by Nacra

licenced suppliers only.

- C.7.2 LIMITATIONS
  - (a) Only one starboard **hull** and one port **hull** shall be used in an event, except when lost or damaged beyond repair. Any replacement shall only be made with the approval of the Event Technical Committee.
  - (b) A breather hole in the centre of the top-hatch of each **hull** shall be present and remain open.
  - (c) The Manufacturers Mark (Nacra 15 Logo) within the pro grip or the vinyl graphic, shall be present on the outside of the stern of each hull.

## Amend to read:

- C.7.1 MODIFICATIONS
  - (a) Non-skid tape of a thickness no greater than 3mm may be applied to any part of the **hull** and cross beams above the line of **flotation trim**.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



- (b) Wedges may be fitted under the rotation line cleats
- (c) Stand-up springs or boots may be fitted between the gennaker blocks and the eye-straps on the **deck**.
- (d) Two foot-straps may be fitted to each **hull**, aft of the rear cross beam.
- (e) Holes shall be made in the hull or deck mouldings only in the following cases;
  - (i) For the purpose making **repairs**.
  - (ii) To fit foot-straps.
- (f) Shockcord may be led through the breather hole in the centre of the top hatches

## C.7.2 MAINTENANCE

(a) **Maintenance** to the **hull** is permitted. The watertight integrity of the **hull** shall be maintained.

## C.7.3 **REPAIR**

**Repairs** for the hull require approval as described in C.6.3, except filling and blending of small voids (chips and gouges) of 20mm x 20mm which may be carried without approval.

C.7.4 LIMITATIONS

(a) Only one starboard **hull** and one port **hull** shall be used in an event, except when lost or damaged beyond **repair**. Any replacement shall only be made with the approval of the Race Committee or Event Technical Committee.

- (b) The Manufacturers Mark (Nacra 15 Logo) shall be present on the outside of the stern of each **hull**.
- (c) Serial numbers shall remain legible.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



# Amendment Thirteen

## C.8 HULL APPENDAGES

## Old:

C.8.1 MODIFICATIONS MAINTENACE AND REPAIR MODIFICATIONS

- (a) The rudder winglet screw heads may be filled and faired.
- (b) The tiller extension may be replaced by any tiller extension provided that it is compatible with the Nacra Licenced supplied Tiller Connector Bar Universal Joint.

### MAINTENANCE

(c) The outermost surfaces of the daggerboards and rudders may be cleaned, sanded and polished provided that the essential shape, characteristics and function of the original component are not affected.

(d) The rope handle of the daggerboard may be replaced by a different rope, with a maximum length of 600 mm and minimum 6 mm of thickness.

(e) Polish or friction-reducing compounds (E.g. McLube or Teflon) may be applied to the surfaces only prior to racing.

#### REPAIR

(f) Repairs to chips and scratches in the leading and trailing edges of the daggerboards and rudders may be filled and faired. (g) Re-finishing and fairing of a hull appendage surface is permitted only to facilitate localised repair.

## C.8.2 MAINTENANCE

- (c) The outermost surfaces of the daggerboards and rudders may be cleaned, sanded and polished provided that the essential shape, characteristics and function of the original component are not affected.
- (d) The rope handle of the daggerboard, may be replaced by a different rope, with a maximum length of 600 mm and minimum 6 mm of thickness.
- (e) Polish or friction-reducing compounds (E.g. McLube or Teflon) may be applied to the surfaces only prior to racing.

#### REPAIR

- (f) Repairs to chips and scratches in the leading and trailing edges of the daggerboards and rudders may be filled and faired.
- (g) Re-finishing and fairing of a hull appendage surface is permitted only to facilitate localised repair.
- C.8.2 LIMITATIONS
  - (a) Only one starboard daggerboard, one starboard rudder, one port daggerboard and one port rudder shall be used in an event, except when an item has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Event Technical Committee

## Amend to read:

- C.8.1 MODIFICATIONS
  - (a) The rudder winglet screw heads may be faired.
  - (b) The tiller extension may be replaced by any tiller extension provided that it is compatible with the NS supplied tiller connector bar universal joint.
  - (c) The rope handle of the daggerboard, may be replaced by a different rope, with a

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



maximum length of 600 mm and minimum of 6 mm thickness

- C.8.2 MAINTENANCE
  - (a) **Maintenance** of **hull appendages** is permitted with the following exceptions: For **daggerboards** and **rudders**:
    - (i) **Coating** is not permitted as part of Maintenance.
    - (ii) **Sanding** is permitted on the gelcoat layer on the outermost sides of the daggerboards and rudders.
    - (iii) **Lubricating** is only permitted for the purpose of reducing bearing friction while raising and lowering the appendages.
  - (b) Polish or friction-reducing compounds (E.g. McLube or Teflon) may be applied to the surfaces only prior to racing.
- C.8.3 REPAIR
  - (a) **Repairs** to **hull appendages** require approval as described in C.6.3, except chips and scratches in the leading and trailing edges of the **daggerboards** and **rudders** which may be carried out without the approval of actions and materials.
  - (g) Re-finishing and **fairing\_**of a **hull appendage** surface is permitted only to facilitate localised **repair**.
- C.8.4 LIMITATIONS
  - (a) Only one starboard daggerboard, one starboard rudder, one port daggerboard and one port rudder shall be used in an event, except when an item has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Race Committee or Event Technical Committee

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



# Amendment Fourteen

## Old:

C.9 BEAMS

(a) The jib sheet and mainsail downhaul trim line retraction system may be modified to make them a continuous system to the opposite side of the platform. Additional blocks may be used as specified in Appendix Section I.

(b) The beam bolts bedding inside the beam extrusion and casting shall not be adjusted and no filler shall be applied.

- (c) No additional holes shall be made in the beam extrusions.
- MAINTENANCE
- (e) Routine maintenance such as cleaning, polishing and the replacement of broken fittings is permitted.

REPAIRS

- (f) Localised repairs to damaged equipment may be undertaken. Any repair shall not be used to reinforce an existing part or add a function.
- C.9.2 LIMITATION

Front cross beam deflection is the greatest distance between: The cross beam and a straight line from the port and starboard underside of the beam, at the intersection with the hull, taken at 90o to the straight line. Taken with the dolphin-striker tensioned, the mast either removed or standing with 0 rig tension, and the cross-beam horizontal and both crossbeams tightened into their beam beddings.

## Amend to read

- C.9 ASSEMBLED PLATFORM
- C.9.1 MODIFICATIONS
  - (a) The **jib** sheet and **mainsail** downhaul trim line retraction system may be modified to make them a continuous system to the opposite side of the platform. Additional blocks may be used as specified in Appendix Section I.
  - (b) The beam's bolt bedding inside the beam extrusion and casting shall not be adjusted and no filler shall be applied.
  - (c) No additional holes shall be made in the Cross Beams.
  - (d) Fittings may be replaced with fittings of similar size and design

## C.9.2 MAINTENANCE

Maintenance for the Cross Beams is permitted

C.9.3 REPAIR

**Repairs** for the Cross Beams require approval as described in C.6.3

## C.9.4 DIMENSIONS

a) Front Cross Beam curvature

	Minimum	Maximum
Front Cross Beam deflection	5mm	9mm

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



Front Cross Beam deflection is the greatest distance between:

- the highest point of the underside of the Front Cross Beam
- and;
- a straight line from the port and starboard bottom points of the Cross Beam at the intersection with the **hull** taken at 90 degrees to the straight line with the dolphin-striker tensioned and platform assembled, with the mast removed or with the mast standing and the rig tension at 0, and the Front and Rear Cross Beams bedded and tightened into their respective hulls.

# Amendment Fifteen

## C.10 RIG

Old:

C.10.1 MODIFICATION MAINTENANCE AND REPAIRS

The following is permitted without the approval of the IN15CA Technical Committee unless stated otherwise items mentioned in the section may be obtained from any manufacturer. MODIFICATIONS

- (a) To protect the **mast** from the **rigging**, any tape may be used.
- (b) The terminals of the forestay and shrouds and their attachment fittings may be covered with tubular protective covering however the function of the fittings shall not be changed.
- (c) Calibration marks may be used.
- (d) The trapeze wires may also be fitted through the upper terminal of the shrouds
- (e) Tell-tales or ribbons in the **rigging** may be used.
- (f) Mechanical wind indicators may be used
- (g) A protective cover made only by tape or sail cloth and attached by adhesive tape with a max size of 300mm by 350mm may be fitted over the hounds.
- (h) Any fitting may be replaced with a fitting of same type and manufacturer in the same position or close as technically possible as the standard fitting and substantially of the same size and design.

MAINTENANCE

(i) Routine maintenance such as cleaning, polishing and the replacement of broken fittings is permitted.

REPAIR

(j) Localised repairs to damaged equipment may be undertaken. Any repair shall not be used to reinforce an existing part or add a function

## Amend to read:

C.10.1 MODIFICATION

- (a) To protect the **mast** from the **rigging**, the use of any tape is permitted.
- (b) The terminals of the forestay and shrouds and their attachment fittings may be covered with tubular protective covering however the function of the fittings shall not be changed.
- (c) Calibration marks are permitted.
- (d) The trapeze wires may also be fitted through the upper terminal of the shrouds
- (e) Tell-tales or ribbons in the **rigging** may be used.
- (f) Mechanical wind indicators may be used.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



- (g) A protective cover made only by tape or sail cloth and attached by adhesive tape with a max size of 300mm by 350mm may be fitted over the hounds.
- (h) A Fitting may be replaced with a fitting of a similar size and design.
- C.10.2 MAINTENANCE
  - (a) Maintenance to the rigging is permitted
- C.10.3 REPAIR
  - (a) in the event of damage to a rig:
    - (1) **Repairs** to **spars**, **spreaders**, and **standing rigging** require written approval of the IN15CA Technical Committee.
    - (2) **Repairs** to **running rigging** may be carried out without approval
- C.10.4 FITTINGS
  - (a) USE
    - (i) The lower hole of the hounds shall be used to fit the **forestay** and **shrouds**.
    - (ii) The middle and top hole of the hounds may be used to fit the **trapeze** lines.
    - (iii) The **trapeze** lines may also be fitted through the upper terminal of the **shrouds**.

# Amendment Sixteen

### Old:

- C.10.2 LIMITATIONS
  - (a) Only one **mast** and one **boom** and **standing rigging** shall be used during an event, except when an item has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Event Technical Committee.
  - (b) Lower hole of the hounds shall be used to fit the forestay and shrouds.
  - (c) The middle and top hole of the hounds shall be used to fit the trapeze wires.
  - (d) No additional holes shall be drilled in the **mast** section.
  - (e) The forestay length is controlled by laying the forestay, including the chainplate or turnbuckle (C.10.7 (a)(2)), along the forward face of the mast section and measuring the maximum extension possible of the forestay with the chainplate or turnbuckle. This distance shall be taken between the lower trimming line of the mast section and the bearing surface of the forestay pin and shall be a minimum of 295 mm.

#### C.10.3 STANDING RIGGING

- (a) MODIFICATION, MAINTENANCE AND REPAIR.
  - (i) **Standing rigging** may be replaced and shall comply with the following:

Standing rigging			Material	Associated Hardware	options or restrictions
	Qty	Diam.			
		mm			
Forestay	1	4.0	Standard 1 x 19 stainless steel wire		±0.05 mm in diam. Length minimum 5570mm & maximum 5590mm
	1			Stay Adjuster	C.10.3 (a) (ii), Grandfathering: Until 31 <sup>st</sup> Dec 2020
Bridle	2	3.0	Standard 1 x 19 stainless steel wire		Nacra Licensed suppliers only
	1			Bridle fitting NA31698	Nacra Licensed suppliers only
Shrouds	2	4.0	Standard 1 x 19 stainless steel wire	-	diam. ±0.05 mm.

International Nacra15 Class Association



Effective date: 2022-02-01 Status: Approved

	2			Stay Adjuster	C.10.3 (a) (ii)
Diamonds	2	3.0	Standard 1 x 19 stainless steel wire		diam. ±0.05 mm.
Bowsprit bridle	2	2.5	Standard 1 x 19 stainless steel wire		Nacra Licensed suppliers only
Bowsprit mid- bridle	2	3.0	Dyneema or Polyester		±0.2 mm diam.
Tramp laces rear	1	3.0	Dyneema or Polyester		±0.2 mm diam.
Tramp laces side	2	3.0	Dyneema or Polyester		±0.2 mm diam.
Trapeze lines	4	2.5	1 x 19 stainless steel wire	Open, see C.10.4 (a)(v)	±0.2 mm diam. Minimum Length 5000mm

<sup>(1)</sup> Length is the distance taken between the bearing surfaces of the rigging.

## Amend to read:

- C.10.5 LIMITATIONS
  - (a) Only one set of **spars** and **standing rigging** shall be used during an event, except when an item has been lost or damaged beyond <u>repair</u>. Any replacement shall only be made with the approval of the Event Technical Committee or in its absence the Race Committee.
    (b) No additional holes shall be drilled in the **mast** section
  - (b) No additional holes shall be drilled in the **mast** sect
- C.10.6 STANDING RIGGING
  - (a) MODIFICATION, MAINTENANCE AND REPAIR.
    - (1) Standing rigging may be replaced and shall comply with Appendix Section I.
    - (2) The stay adjusters of **forestay** and **shrouds** may be replaced by a turnbuckle of the following manufactures:
      - Ronstan Calibrated Turnbuckles RF1575
      - NavTec Quickfit lifeline Turnbuckle 316
      - C.S. Johnson 12-100 Stay Adjuster Calibrated.
      - Stay Master 1/8"
      - Blue Wave Mono Race 4mm

Turnbuckles form other manufacturers may be used if pre-approved by the IN15CA Technical Committee in writing.

- (3) The **shrouds** and **forestay** terminal wire connectors may be replaced by fittings of substantially of the same size, weight and structural design.
- (4) The ring of the **Jib** Halyard Locking system shall be in the same position as on the standard forestay, of the same size and structural design, with the exception; the ring of the locking system may be fitted to the forestay by rope.
- (5) Carbon tubes or other similar cylindrical covers of up to 20 cm in length may be used to cover shroud turnbuckles and chainplate
- (b) DIMENSIONS
  - (i) Forestay control:

The **forestay** shall be placed along the foreside of the **mast** with the turnbuckle fully extended or the chainplate attached at maximum extension. The distance from the lower end of the section of the **mast** to the centre of the lower **forestay** pin shall be a minimum of 220 mm

- (c) USE
  - (i) **Standing rigging** shall not be adjusted while *racing*.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



# Amendment Seventeen

## Old:

- C.10.4 RUNNING RIGGING
  - (a) MODIFICATION, MAINTENANCE AND REPAIR.
    - (i) **Running rigging** may be replaced and shall comply as specified in Appendix section I.
    - (ii) The mainsheet system reeving or number of sheaves may be altered to achieve a maximum purchase of 10:1 and a minimum purchase of 8:1, only one ratchet block is allowed in the mainsheet system.
    - (iii) The Mainsail downhaul system is to achieve a maximum of 8:1 purchase.
    - (iv) The four supplied blocks for the **Gennaker** sheets, may be changed to any type of block with a minimum sheave diameter of 40mm and a maximum of 57mm.
    - (v) The trapeze system arrangement is open and may be modified to include an adjustable hook height system provided that the adjustment rope is a minimum of 5mm. Attachment methods by shockcord are to use the hull trapeze fairlead and via the end caps in the front cross beam.
    - (vi) The Mainsail Downhaul trim line may be led through a ring or block with a maximum sheave diameter of 29mm attached to the **trapeze** system by rope.
    - (vii) A shackle or snap-shackle may be fitted at the end of the main sheet where it attaches the mainsail.
    - (viii)A shackle or snap-shackle may be fitted at the end of the jib sheet where it attaches to the clew of the jib.
    - (ix) Additional gennaker tack-line inboard end turning blocks may be attached by rope to the **shrouds**, gennaker strap-eye or front cross beam or beam casting with a maximum sheave diameter of 29mm.
    - (x) The Mast rotation line may be modified to a continuous system.
    - (xi) A rope with a ring may be fitted to the gennaker clew for the purpose of leading the gennaker retrieval line through this ring.
  - (b) USE
    - (i) **Running rigging** shall be led through and attached to the fittings supplied for their function.

## Amend to read

- C.10.7 RUNNING RIGGING
  - (a) MODIFICATION, MAINTENANCE AND REPAIR.
    - (i) **Running rigging** may be replaced and shall comply as specified in Appendix section I.
    - (ii) The Mainsail downhaul system is to achieve a maximum of 16:1 purchase.
    - (iii) The trapeze system arrangement is open and may be modified provided that the adjustment rope is a minimum of 5mm. Attachment methods by shockcord and shall use the hull trapeze fairlead and via the end caps in the front cross beam.
    - (iv) The Cunningham trim line may be led through a ring or block with a maximum sheave diameter of 29mm attached to the **trapeze** system by rope.
    - (v) A shackle or snap-shackle may be fitted at the end of the main sheet where it attaches the mainsail.
    - (vi) A shackle or snap-shackle may be fitted at the end of the jib sheet where it attaches to the clew of the jib.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



- (vii) The gennaker tack-line inboard end turning blocks may be attached by rope to the **shrouds**, gennaker strap-eye or front cross beam or beam casting with a maximum sheave diameter of 29mm.
- (viii) The Mast rotation line may be modified to a continuous system.
- (ix) A rope with a ring may be fitted to the gennaker **clew** for the purpose of leading the gennaker retrieval line through this ring.
- (b) USE
  - (i) **Running rigging** shall be led through and attached to the fittings supplied for their function.

# Amendment Eighteen

## C.11 SAILS

## Old:

Modifications, Maintenance and Repair.

- C.11.1 MODIFICATIONS,
  - (a) Additional tell-tales may be applied.
  - (b) Additional camber stripes may be applied.
  - MAINTENANCE
  - (c) Routine maintenance such as sewing and patching is permitted.
  - (d) Mclube, Holmenkol or similar sail treatments may be used.
  - REPAIR
  - (e) Sails shall not be recut.
  - (f) Localised repairs to sails may be undertaken. Any repair shall not be used to reinforce an existing part or add a function.
- C.11.2 LIMITATIONS

Not more than 1 **mainsail**, 1 **jib** and 1 **gennaker** shall be used during an event except when a **sail** has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Event Technical Committee.

#### C.11.3 MAINSAIL

(a) MODIFICATION.

The application of paint, ink, vinyl, mylar or other plastic film over the surfaces of the **mainsail** is permitted to facilitate advertising, provided that it shall not cover the window panels (blue coloured panels in Appendix Section K).

- (b) LIMITATION.
  - (1) **Sail** numbers shall be any of the following:
    - (i) The number shown on the ISAF/World Sailing International Class building plaque of the **boat**, or of any **boat** owned by the **crew** members.
    - (ii) Where the helm has finished in the top 3 in the preceding Nacra 15 World Championship the **sail** number shall be that place, single digit.
    - (c) The national letters and the sail numbers shall be black in colour and applied according to the dimensions as defined in Appendix Section K immediately under batten number 4. The national letters and numbers shall comply with the RRS Appendix G except where specified otherwise in Class Rules Appendix K.

#### BATTENS

The **Mainsail** battens shall be of the standard set supplied by Nacra Licensed manufacturer only and shall not be altered. A standard batten set shall consist of six battens.

International Nacra15 Class Association

Effective date: 2022-02-01 Status: Approved



Battens shall be inserted in their matching **batten pocket** and no more than one batten shall be placed in each **batten pocket**.

- (d) NATIONAL FLAGS
  - (i) All teams when racing shall display their national flag. The flag shall be either single sided on the starboard side or placed back to back on the starboard and port side of the mainsail between the 3rd and 4th battens from the head point of the **sail**. National Flag fitting dimensions can be found in Section K.
  - (ii) The National Flag shall be corresponding to the Country Code displayed in the **sail** number.
- (e) LIMITATIONS

The **sail** shall be hoisted on the **halyard**. The Nacra licensed supplied arrangement shall permit hoisting and lowering of the **sail** whilst afloat.

#### C.11.4 JIB

(a) MODIFICATIONS

The application of paint, ink, vinyl, mylar or other plastic film over the surfaces of the **Jib** is permitted to facilitate advertising, provided that it shall not cover the window panels (blue coloured panels in Appendix Section K).

(b) BATTENS

The **jib** battens shall be of the standard set supplied by Nacra Licensed manufacturer only and shall not be altered. A standard batten set shall consist of a lower, middle and top batten.

Battens shall be inserted in their matching batten pocket and no more than one batten shall be placed in each **batten pocket**.

(d) LIMITATIONS

The **sail** shall be hoisted on the **halyard**. The Nacra licensed supplied arrangement shall permit hoisting and lowering of the sail whilst afloat.

#### C.11.5 GENNAKER

(a) MODIFICATION

The gennaker may be painted or printed for graphics.

## Amend to read

#### C.11.1 MODIFICATIONS, MAINTENANCE AND REPAIR

- (a) **Repair** of sails may be carried without approval with the following exception:
  - (i) During an event, **repairs** of **sails** require the approval of the Event Technical Committee.
- (b) The following is permitted without approval:
  - (i) Addition of tell tales.
  - (ii) Addition of camber stripes-
  - (iii) Lubrication may be used.
- C.11.2 LIMITATIONS
  - (a) Not more than 1 mainsail, 1 jib and 1 gennaker shall be used during an event except when a sail has been lost or damaged beyond repair. Any replacement shall only be made with the approval of the Event Technical Committee or in its absence the Race Committee.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



### C.11.3 MAINSAIL

(a) MODIFICATION, MAINTENANCE AND REPAIR.

The application of paint, ink, vinyl, mylar or other plastic film over the surfaces of the **mainsail** is permitted to facilitate advertising, provided that it shall not cover the window panels (blue coloured panels in Appendix Section K).

- (b) IDENTIFICATION.
  - (1) **Sail** numbers shall be any of the following:
    - (i) The number shown on the ISAF/World Sailing International Class building plaque on the **boat**, or on any **boat** still owned by the **crew** members.
    - (ii) Where the helm has finished in the top 3 in the preceding Nacra 15 World Championship the **sail** number shall be that place, single digit.
    - (iii) The national letters and the sail numbers shall be black in colour and applied according to the dimensions as defined in Appendix Section K immediately under batten number 4. The national letters and numbers shall comply with the RRS Appendix G except where specified otherwise in Class Rules Appendix K.
- (c) BATTENS

The **Mainsail** battens shall be of the standard set supplied by Nacra Licensed manufacturer only and shall not be altered. A standard batten set shall consist of six battens.

Battens shall be inserted in their matching **batten pocket** and no more than one batten shall be placed in each **batten pocket**.

- (d) NATIONAL FLAGS
  - (i) All teams when *racing* shall display their national flag. The national flag shall be single sided on starboard if the Mk1, sectional flag. Or placed back to back on the starboard and port side of the **mainsail** if the Mk2 printed flag.
  - (ii) National flag placement shall be between batten number 3 and batten number 4 from the head point of the sail. National flag fitting dimensions can be found in Section K.
  - (iii) The national flag shall be corresponding to the country code displayed in the **sail** identification.
- (e) USE
  - (1) The main**sail** shall be hoisted on the **halyard**. The Nacra licensed supplied arrangement shall permit hoisting and lowering of the main**sail** whilst afloat with the boat upright.
- C.11.4 JIB
  - (a) MODIFICATIONS, MAINTENANCE AND REPAIR
    - (1) The application of paint, ink, vinyl, mylar or other plastic film over the surfaces of the Jib is permitted to facilitate advertising, provided that it shall not cover the window panels (blue coloured panels in Appendix Section K).
  - (b) BATTENS

The **jib** battens shall be of the standard set supplied by Nacra Licensed manufacturer only and shall not be altered. A standard batten set shall consist of a lower, middle and top batten.

Battens shall be inserted in their matching batten pocket and no more than one batten shall be placed in each **batten pocket**.

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



- (b) USE
  - (1) The **jib** shall be hoisted on the **halyard**. The Nacra licensed supplied arrangement shall permit hoisting and lowering of the **jib** whilst afloat with the boat upright.
- C.11.5 GENNAKER
  - (a) MODIFICATION

The **gennaker** may be painted or printed for graphics.

(b) USE

A **boat** shall not set the gennaker when sailing on a leg to a windward mark from a leeward mark

# Amendment Nineteen

## D.2 MODIFICATIONS, MAINTENANCE AND REPAIR

Old:

The alterations contained in D.2.1. to D.2.2 may be made by Nacra, or by anybody after a formal request has been made to the Nacra and written approval is received by the owner. This shall require the manufacturer's declaration to be re-issued

(a) If any **hull** is damaged and requires repaired in any other way than described in section C the details shall be recorded on the Manufacturers declaration

### Amend to read

The alterations contained in D.2.1. to D.2.3 may be made by Nacra Sailing, or by anybody adhering to NS technical instructions

# Amendment Twenty

## E.2 MODIFICATIONS, MAINTENANCE AND REPAIR

## Amend to add:

The alterations contained in E.2.1. to E.2.3 may be made by Nacra Sailing, or by anybody adhering to NS technical instructions.

## E.2.1. MODIFICATIONS

(a) Starboard and Port NSLM supplied **daggerboards** may be Mk1, Mk2 or a combination.

E.2.2. MAINTENANCE

E.2.3 REPAIR

(a)

# Amendment Twenty-one

## E.4 IDENTIFICATION

Old:

The **daggerboard** and **rudder blades** of items (a), (b), (c) and (d) carry the licensed manufacturer's serial number displayed on the blade.

**Rudder** castings items (e) and (f) and shall carry imbedded Nacra logos.

Tiller bar item (g) shall carry a Nacra 15 identification stickers.

<sup>(</sup>a)

International Nacra15 Class Association Effective date: 2022-02-01 Status: Approved



### Amend to read

The Licensed Manufacturer's serial number shall be displayed on the daggerboards and rudder blades

Rudder castings items (e) and (f) and shall carry imbedded Nacra logos.

Tiller bar item (g) shall carry a Nacra 15 Licenced Manufacturer Identification Stickers.

## **Amendment Twenty-two**

## F.2 MODIFICATIONS, MAINTENANCE AND REPAIR

### Amend to add:

The alterations contained in F.2.1. to F.2.3 may be made by Nacra Sailing, or by anybody adhering to NS technical instructions.

F.2.1. MODIFICATIONS

(a) Mastfoot update as per NS instructions.

- F.2.2. MAINTENANCE (a)
- F.2.3. REPAIR (a)

# Amendment Twenty-three

## G.2 MODIFICATIONS, MAINTENANCE AND REPAIR

#### Amend to add:

The alterations contained in G.2.1. to G.2.3 may be made by Nacra Sailing, or by anybody adhering to NS technical instructions.

G.2.1. MODIFICATIONS

(a)

- G.2.2. MAINTENANCE
  - (a)
- G.2.3. REPAIR

(a)

# **Amendment Twenty-four**

## G.4 IDENTIFICATION

Old:

The **mainsail**, **jib** and **gennaker** shall carry the licensed manufacturer's serial number displayed on the sails.

#### Amend to read

The NSLM serial number displayed on the mainsail, jib and gennaker