APPENDIX IV–
DEVELOPMENT AND MEASUREMENT RULES OF THE INTERNATIONAL TEN SQUARE METRE SAILING CANOE (JANUARY 2008)

1 GENERAL

Class and measurement rules measurement forms may be obtained from the I.C.F.

2 MEASUREMENT

All Canoes entered in competition shall be measured to assure conformity with these rules. Unless specifically required otherwise hereunder, all measurements shall be taken parallel to one of the three major axes of the hull - vertical, horizontal or transverse - related to the waterline and fore and aft centre line of the hull.

3 SPIRIT OF THE RULES

The International Canoe has a long and vital history; these rules frame parameters for continuing development of the sailing canoe.
The individual values and dimensions within these rules are based on historical precedent and current best practices. These rules endeavour to offer designers and builders significant opportunity for innovation while maintaining continuity with the past.

4 PRINCIPAL DIMENSIONS

Length 4900-5200mm
Beam 750-1100mm
Sail Area 10m2

5 HULL

a) The overall length shall be not be greater than 5200mm or less than 4900mm. This measurement shall include any protective strip and shall exclude rudder and rudder fittings. However if the athwartships width of the rudder or hardware exceeds 50mm within 150mm of the bottom of the hull at the stern, the length shall be measured to the aftermost point of the rudder.
b) The projection on to a horizontal plane of the line of greatest beam shall be a continuous curve, and at bow and stern shall lie inside lines which are at 45º to the centre-line and which pass through the centre-line not more than 25mm beyond the extremities.
The line of greatest beam may be a combination of convex, concave and straight lines.
No concave curve shall have a radius of less than 100mm.
No convex curve shall have a radius of less than 60 mm except within 50mm of the stem and stern.
There shall be not more than one concavity per side in the line of greatest beam.
c) A 1000mm straight edge set to span such a concavity fore and aft, with 0mm at the outboard tangent, shall nowhere be more than 100mm from the hull skin (measured perpendicular to the straight edge.)
d) The canoe must have a minimum beam of 750mm. Beam shall be measured at a Beam Measurement Station (BMS) located between 1300mm and 2600mm forward of the stern. At BMS, nowhere between the heights of 100mm and 275 mm above the keel shall the outside of the hull skin be less than 750mm in beam.

e) A 2000 mm tape centred on BMS and pulled tight fore and aft against the outside skin of the hull, shall bridge no hollow in excess of 1mm in depth. A 1000 mm tape centred on the keel at BMS and pulled tight transversely against the outside skin of the hull, shall bridge no hollow in excess of 1mm in depth.
f) Nowhere shall the outside skin of the hull exceed 1100mm in beam.
g) The hull surface shall be a continuous structure fore and aft and athwartships. It shall not be breached by any through structure or holes except by no more than one centreboard trunk and one rudder trunk.
h) The hull and all equipment required for racing, except for sails, battens, clothing, food and drink, shall be weighed together and dry and shall have a total mass of not less than 50kg.
The mass of correctors shall not exceed 10kg.
Correctors shall be fastened permanently either to the seat carriage or the outside of the deck adjacent to the seat carriage and shall be clearly visible.
The number, weight and placement of correctors shall be noted on the measurement certificate.
Correctors shall be marked by the measurer.
i) The hull shall not be ballasted.
j) There are no restrictions on the material or method of construction of the hull.

6 DECK
a) Outriggers that extend beyond the sheer line for the purpose of providing a rigging point, or modifying the lead of a sheet, or for providing additional structure to support the sailor other than the sliding seat or the booms defined in rules 8 and 11 are prohibited.
b) There are no restrictions on the design or material of the deck other than the rules above.

7 BUOYANCY
Reliable buoyancy to give at least 75 kg of positive buoyancy with hull flooded shall be provided.
The volume of the hull and deck skins as well as any internal framing may contribute to this requirement, but the flooded canoe hull must support its own weight plus 75 kg of additional weight.
If the buoyancy is in the form of tanks or flexible bags there shall be at least two.
A sectioned hull is not acceptable.
If the buoyancy is not removable the builder must certify that such buoyancy satisfies this rule.

8 SLIDING SEAT
a) The sliding seat shall not extend further than 2040mm from the centre-line of the hull. This measurement is taken horizontally.
b) The width of the sliding seat shall not exceed 500mm.
c) The length of the sliding seat shall not exceed 2600mm
d) The mass of the sliding seat shall not be greater than 12kg, including all moving parts excluding the seat carriage.

e) The sliding seat carriage shall not extend beyond the sheer-lines.
f) A visual contrasting band or marker must clearly indicate the extent of the maximum allowable travel whilst sailing.
The visual contrasting band or marker and its location shall be subject to the approval of the National Measurer.
g) There are no restrictions on the design or material of the sliding seat other than the rules above.

9 CENTRE-BOARD

a) The centre-board shall not project more than 1000mm from the underside of the hull when fully lowered.
b) The centre-board shall be attached so that it cannot normally fall out of its housing and when free of the hull shall float horizontally on the water.
c) The centre-board shall be capable of being raised while sailing so as not to project below the underside of the hull.
d) There are no restrictions on the design or material of the centre-board other than the rules above.

10 RUDDER

a) The rudder shall not project more than 1000mm from the underside of the hull when fully lowered.
b) The rudder shall be attached so that it cannot normally fall out of its housing and when free of the hull and shall float.
c) The rudder shall be capable of being raised or removed without the use of tools with the canoe floating upright so as not to project below the underside of the hull.
d) There are no restrictions on the design or material of the rudder other than the rules above.

11 MAST, BOOM, RIGGING

a) Any measurement over 75mm in the fore and aft section of a rotating mast shall be measured as sail area. This measurement of area shall be taken between the upper measurement band and the actual or projected line of the foredeck.

b) The width and depth of the boom shall not exceed 100mm. The width and depth of the boom of a boomed foresail shall not exceed 30mm. For wishbone booms used for mainsail and/or foresail each side of a wishbone shall be measured separately and shall comply with the same limits.
c) The greatest projected area of spars other than the mast, boom, jib stick and the boom of a boomed foresail shall be included in the sail area.
d) A jib stick may be used to boom out the foresail. When in use it shall be fixed to the mast and attached to the clew.
e) No sail shall be hoisted or set more than above 6360mm above the underside of the hull.
f) If the mast is taller than 6360mm, it shall carry a permanent band of contrasting colour approximately 10mm wide such that the lower edge is 6360mm above the underside of the hull. No sail shall be hoisted or set more than above the underside of this band.

g) The tip to tip distance of any spreaders or spreader system shall not exceed the hull beam at the chainplates.

h) The mainsail shall be capable of being lowered or furled from within or alongside the hull while afloat without the use of tools.

i) There are no restrictions on the design, material, or position of the mast and spars other than the rules above.

12 SAILS

a) The total sail area shall not exceed 10 square Metres. Fairings attached to the sail shall be measured as part of the sail. Fairings attached to the mast shall be measured as part of the mast. It is intended that the actual projected area of the sails shall be measured using successive triangulation and the following procedure:

The sail shall have a tension of 10kg wt on wired and roped edges and 5kg wt on other edges simultaneously.

Measurements are taken to the outside edges of sails and to the inner edges of ropes or wires. Zip fasteners and other devices should be opened, so that the greatest sail area is measured.

If a stretch luff is used on a mainsail the luff measurement will be taken as the distance between the lower edge of the band on the mast and the upper edge of the boom, with the boom at its lowest position if not fixed.

Stretch luffs on foresails must be extended until the folds in the luff disappear.

Each sail, if not itself of suitable material, must be provided with an area at least 60mm by 60mm which will accept a permanent mark or stamp by the measurer. It must be possible for the helmsman readily to remove the mainsail from the mast while the canoe is floating free.

b) Mainsail: the battens are to be in place, but un-tensioned.

The main triangle is then measured. The area of the roach on the leech is measured by successive triangulation: the perpendicular of each triangle shall be positioned at the maximum width of the segment, except that they shall be positioned so that the perpendicular of the lower leech triangle shall not be greater than 150mm. If the lower part of the leech is straight the second triangle may be taken to meet the leech at the upper end of the straight part to simplify calculation. If the edge of the sail is curved the area is divided into triangles until the perpendicular of a segment is less than 150mm; the area of the remaining segment is taken as 2/3rds chord times width. If the edge of the sail is straight it shall be divided into convenient triangles.

The areas of the roaches on the luff and the foot are measured using a similar method.

For sleeve luff sails, the leading 75mm is considered mast area when the sail is laid flat for measurement.

The measuring points at the corners of sails shall be the intersection of the continued smooth curves of the edges of the sail.

To allow for fullness in the luff and foot of the mainsail 0.6 square Metres is deducted from the calculated area.

c) Foresail. The area is measured by successive triangulation using a method similar to that used for the mainsail.

Negative areas on the foot and leech shall be subtracted from the total area.
Positive areas on the foot and leech shall be included.
Positive and negative areas on the luff shall be ignored.
d) All linear dimensions shall be taken to the nearest mm.
The total area of each sail shall, after addition of its components be rounded off to two decimal places (0.01 square Metre)
e) Sails must be able to pass through a hoop of internal diameter 300mm.
f) The mainsail shall carry the letters IC in red, the national letter or letters and the registered number allocated by the National Federation. The national letter or letters and sail numbers shall be clearly visible, legible and of a single colour that strongly contrasts with the sail and in roman style (upright), without serifs, with arabic numerals and with lines that are continuous and of uniform thickness.
National letters shall be placed in front of or above the sail numbers.
When the national letters end in "I" and are placed in
front of the numbers, they shall be separated from the numbers by a horizontal line approximately 50mm long.
The letters IC, national letter(s) and sail numbers shall be above an imaginary line projecting at right angles to the luff from a point one-third of the distance, measured from the tack, to the head of the sail; shall be clearly visible; and shall be placed at different heights on the two sides of the sail, those on the starboard side being uppermost.
Numbers and letters shall be of the following minimum dimensions:
Height: 300mm.
Thickness: 40mm.
Width: 200mm. (excluding number one or letter L)
Space between adjoining letters and numbers: 60mm.
g) There are no restrictions on the design, material or position of sails, battens, ropes or wires, other than the rules above.

13 CREW AND EQUIPMENT

a) The crew shall be one person only.
b) An anchor need not be carried.
c) Personal buoyancy must be worn or carried ready for immediate use.
d) No electronic equipment which receives a transmission from a source external to the canoe or which processes two or more data is permitted.

14 ADMINISTRATION

a) Measurement authority Each National Federation in the I.C.F. has the authority to measure canoes. Each National Federation may appoint National Measurers, and shall keep records of canoes measured under its authority. It is the responsibility of National Federations that canoes registered with them conform to the class rules when entered for international regattas. In cases of difficult or disputed measurement, the measurer shall use a method that he considers appropriate, and shall send details of this method and measurements to the National Federation. The measurer shall report to the National Federation anything which he considers departs from the spirit of these rules. The ICF Sailing Committee has authority to make regulations for the further interpretation of these rules.

b) Measurement After measurement, the measurer will send detailed measurements to his National Federation where they are kept for record. The National Federation issues a Certificate of Measurement to the owner. The certificate must specify the position and amount of corrector weight(s) and the type of buoyancy provided. The National Federation may refuse to issue a Certificate, even if the specific requirements of the rules are met, if a canoe departs from the spirit of these rules. If a registered canoe is extensively repaired, modified, or re-constructed it must be re-measured. Changes of ownership should be notified to the National Federation.

c) Expenses Measurement fees shall be at the discretion of each National Authority. Costs of measurement at International Regattas will be paid by the organising National Federation.

d) Basis of measurement All measurements will be taken in metric units. It is the responsibility of measurers that measurements are taken as accurately as possible.

15 INTERPRETATION

In the case of dispute the English text shall prevail.