INTERNATIONAL FLYING FIFTEEN
CLASS RULES
2014

The Flying Fifteen was designed in 1947 by Uffa Fox OBE, and adopted as an International Class in 1981

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PART A - ADMINISTRATION RULES

1. GENERAL

The International Flying Fifteen Class is a one design *racing* keelboat. To ensure that the administration of the Class and objective of the Class Rules are maintained, before any International Flying Fifteen may be raced, the following documents must have been issued and the requirements adhered to:

(a) International Class Fee Receipt

(b) ISAF Plaque

(c) Registration Certificate

(d) Measurement Certificate

(e) Sail Endorsements

(f) Endorsements showing the owner to be a current member of an association affiliated to Flying Fifteen International (FFI).

All the above documents except the ISAF Plaque shall be included within either the RYA Yacht Racing Division Registration Log Book or a **Certificate** issued by the **Certification Authority.** The **Certification Authorities** are the National Flying Fifteen Associations of Australia, New Zealand, Ireland, Hong Kong, South Africa and France, and the Royal Yachting Association for all other countries. Both the Registration Log Books and Certificates should be in the possession of owners at all times. The above documents are obtained as follows:

2. INTERNATIONAL CLASS FEE RECEIPT

An International Class Fee must be paid by the builder for each **boat** at the commencement of building whether or not it is subsequently registered and measured. Payment shall be made via a National Flying Fifteen Association to Flying Fifteen International acting as agents for the ISAF. Payments shall be in sterling and on receipt of payment an International Class Fee Receipt, an ISAF Plaque and a sail number will be issued.

The ISAF Plaque shall be fixed in a visible position in the cockpit before a **boat** is eligible to race for all boats first certificated after 1st March 1991.

The amount of the International Class Fee shall be reviewed by ISAF annually in consultation with FFI.

Owners shall then apply to their **Certification Authority** (see Rule A1) for a Measurement **Certificate**.

3. MEASUREMENT and CERTIFICATION

Measurers

Official Flying Fifteen Class Measurers and Flying Fifteen Class Maintenance Measurers shall be ratified by FFI. **Official Flying Fifteen Class Measurers** shall be proposed by a National Class Association (NCA) and approved in writing by the Member National Authority (MNA) of that country. Flying Fifteen Class Maintenance Measurers shall be approved in writing by a National Class Association (NCA) on the recommendation of its Chief Measurer. The written approvals shall be forwarded to FFI for ratification.

Only **Official Flying Fifteen Class Measurers** shall measure items covered by Rules B2 to B8 inclusive. An **Official Flying Fifteen Class Measurer**, a Flying Fifteen Class Maintenance Measurer or an **Official Measurer** can measure items covered by Rules B9 et seq.

Certification

The owner shall have the **boat** measured in accordance with Part B of these Rules. On completion of satisfactory measurement the **Official Flying Fifteen Class Measurer** shall supply the owner with a completed and signed Measurement Form.

Owners shall then apply to their **Certification Authority** (see Rule A1) for a Measurement Certificate enclosing a completed Measurement Form together with the International Class Fee Receipt and any registration fee that the **Certification Authority** may specify. Upon receipt of these, the **Certification Authority** may issue a Measurement Certificate to the owner. At the same time the owner shall submit three proposed names for the **boat**. No two boats in the Class shall have the same name and owners are particularly requested to submit three alternatives when applying for a Measurement Certificate.

Change of ownership or **boat** name invalidates the Measurement Certificate. The owner shall apply to the **Certification Authority** for a new **Certificate**, returning the old **Certificate** together with any re-registration fee that the **Certification Authority** may have specified. The owner shall also complete the application for re-registration contained within the registration log book.

Hull Replacement
The sail number and building fee apply only to the **hull** for which they were issued and are not transferable. If for any reason a **hull** is replaced by a new one, a new building fee must be paid and a new sail number must be obtained.

4. SAIL ENDORSEMENTS

The owner shall have all new or substantially altered **sails** measured by an approved **Measurer** (see Rule A3). Alternatively, ISAF or an MNA may appoint one or more **In-House Official Measurers** to measure and certify **sails** produced by a licensed manufacturer. After completion of a satisfactory measurement an Official Flying Fifteen Class Measurer or a Flying Fifteen Maintenance Measurer shall sign, number and date both the **sail** at its **tack** and the Measurement Certificate. The number allocated shall be unique and in the form "2M 3218", where 2M represents the second **mainsail** measured for this **boat** and 3218 the **boat** number.

The **certificate** shall carry sail endorsements in accordance with the Class Rules. The **boat** shall race only with **sails** endorsed on her **certificate**, except that in the case of a helmsperson sailing a borrowed **boat**, the **boat** may race with any combination of the **sails** endorsed on the **certificate** of the borrowed **boat**, or on the **certificate** of a **boat** owned by the helmsperson. This **certificate** shall also be examined by the Organising Club, and such sail numbers declared to the Race Office at registration.

When it is satisfied that a **sail** has been lost or damaged to such an extent that it cannot be used, the Race Committee may authorise the use of a replacement **sail.**

5. COMPLIANCE WITH CLASS RULES

For the Registration Certificate, Measurement Certificate and sail endorsement to be valid, all **hulls**, **spars**, **sails** and equipment shall comply with the current Class Rules, except that items covered by Rules B2 to B9 and B11 may comply either with the current Class Rules or with the corresponding Class Rules applying to them when the original Measurement Certificate was issued.

Where substantial repairs to the hull shell are undertaken, such repairs shall be measured by an **Official Flying Fifteen Class Measurer** and must comply with the rules applicable at the time of original measurement.

Where substantial alterations to the **hull** are undertaken, the **boat** shall be completely re-measured under current Class Rules by an **Official Flying Fifteen Class Measurer**.

Following such alterations or repairs the owner shall apply to their **Certification Authority** for a new Measurement **Certificate** enclosing a new Measurement Form and the old **Certificate**. New **spars** shall be measured by an **Official Flying Fifteen Class Measurer** or a Flying Fifteen Class Maintenance Measurer and shall comply with the current Class Rules.

6. CHECK MEASUREMENT

All **boats** shall be liable to re-measurement at the discretion of the ISAF, a Race Committee, FFI or any Flying Fifteen Association affiliated to FFI.

7. REFUSAL OR WITHDRAWAL OF CERTIFICATE

Notwithstanding anything contained within these Rules, the National Authority and FFI shall have the right to refuse to grant a **Certificate** or sail endorsement to, or to withdraw a **Certificate** or sail endorsement from, any **boat** at any time. Boat owners are required to return their Log Book to the **Certification Authority** upon request or upon any dealings pertaining to the **boat**.

8. NOTICE OF RESPONSIBILITY

It is the owner's responsibility to ensure that the **hull**, **spars**, **sails** and equipment comply with the Class Rules at all times and that any alteration, replacement or repair does not invalidate the Measurement Certificate. The ISAF, FFI, Flying Fifteen Associations, **Certification Authorities** and **Measurers** are under no legal responsibility in respect of these Rules, plans or accuracy of measurement and no claims arising therefrom can be entertained. It shall also be made clear that it is the owner's responsibility to contact an appropriate **Measurer** and to make his own contractual agreement with that **Measurer**.

PART B - MEASUREMENT RULES

1. GENERAL

1.1 This is a one design class and the object of these Rules is to ensure that in **hull** form, **hull weight, fin keel**, **rudder**, **rig** and **sails** the boats are as alike as possible.

1.2 These Rules shall be read in conjunction with Plans only where specified herein, and with the official Measurement Form; no Plan or other document shall otherwise be used for interpreting these Rules. Any interpretation shall be made by the ISAF after consultation with FFI.

1.3 In the event of discrepancy between these Rules, the Measurement Form, and/or the plans, the matter shall be referred to the ISAF.

1.4 All boats shall be built in accordance with Class Rules and Specifications e.g. Line Plan and offsets in Plan No. 93/1, other Official Plans, Measurement Form etc.

1.5 The **Measurer** shall report on the Measurement Form anything which he considers to be a departure from the intended nature and design of the **boat**, or to be against general interest of the class, and a **Certificate** may be refused, even if the specific requirements of the Rules are satisfied.

1.6 A **Measurer** shall not measure a **boat** in which he/she has a personal interest.

2. CONSTRUCTION

2.1 The Flying Fifteen may be built by any builder and no licence is required. Prior to the issue of the International Class Fee Receipt (Rule A1) the builder will submit details of the materials of construction to the relevant National Association Chief Measurer for approval.

2.2 Scantlings and materials are optional and the **hull** may be built of any material. The minimum finished weight per unit area of the deck and the hull shell shall be 3.20kg/m^2. The minimum finished weight per unit area of the transom shall be 3.20kg/m^2. The deck is defined for the purpose of these rules as "Any moulding above the **sheerline**".

2.3 Core samples may be taken to measure the weight per unit area.

2.4 Rubbing strakes are optional and may be of any material or construction. If fitted, they shall not measure more than 76mm horizontally and 60mm vertically both measured from the **sheerline**.

3. IDENTIFICATION MARKS

3.1 The **hull** shall carry the sail number, cut, stamped, branded or moulded into the hog in figures not less than 25mm in height.

3.2 The **mainsail** and **spinnaker** shall carry identification marks as indicated in Rule B13.3.

3.3 All emblems, numbers and letters shall be of a durable material securely attached.

4. HULL MEASUREMENT

4.1 The **hull datum point** is the intersection of the hull centreplane, the underside of the hull shell and the transom, each extended as necessary. Depth measurements shall be taken perpendicular to the base line. Measurement sections, including the aft edge of the transom, shall be perpendicular to the base line.

4.2 The **boat length** overall shall be between 6096mm and 6046mm.

4.3 The profile of the transom shall conform to Plan No. 93/1 as follows: The profile shall be checked by a template made to Plan No. 93/3. The template shall touch or clear by not more than 15mm in a radial direction, when applied flush with the rocker at the centre line. The transom shall be flat and vertical to the base line, with a tolerance of 5mm over the height of the transom when testing for being vertical and 5mm over the overall width when testing for flatness, except that where it joins the skin the corners may be rounded to a radius of not more than 13mm when the profile shall be determined by projecting the line of the skin to the template.

Construction lips and flanges between deck and **hull** and associated rubbing strake, if applicable, do not violate this requirement.

4.4 The total camber of the fore and aft decks shall be not more than 150mm. No part of the fore or aft deck shall fall below the **sheerline**. The athwartships section of the fore and aft decks shall be a fair curve from **sheer** to **sheer.**

4.5 The side deck and bulkhead assembly shall not fall below the **sheerline** within 280mm of the **sheerline**. The minimum plan width of the side deck and bulkhead assembly shall be 356mm from the **sheerline**.

4.6 The aft edge of the cockpit shall be not more than 1830mm, nor less than 1540mm, from the transom measured horizontally. The forward edge of the cockpit excluding the mast slot or fittings designed to locate the **mast** shall be not more than 3780mm nor less than 3630mm from the transom measured horizontally. The decks shall be constructed so as to locate the **mast** as provided in Rule B10. Spinnaker pockets and spinnaker chutes may be installed, provided they drain into the cockpit and/or overboard. Spinnaker pockets shall not start within 280mm of the **sheerline** and must be aft of the breakwater. Spinnaker chutes may be installed anywhere in the foredeck forward of Station 2.

4.7 A breakwater shall be fitted. The combined height of the deck and the breakwater, measured from the **sheerline**, shall be a minimum of 175mm at the **centreplane** and may be reduced in a fair convex curve to within 25mm of the **sheer** at which point the height may be reduced to 25mm. The foremost edge of the breakwater shall not exceed 4475mm measured from the aft edge of the transom.

4.8 Measurement stations shall be marked at the following distances from the **hull datum point** at the lower aft edge of the transom.

Station 1	5613mm
Station 2	5311mm
Station 3	4547mm
Station 4	3785mm
Station 6	2261mm
Station 8	737mm

The base line shall be set up at 305mm below the centreplane at Station 2 and 381mm below the **hull datum point**.

The **sheerline** position at each measurement Station shall be determined and marked on the deck.

The following measurements shall conform to those stated on the Measurement Form:

1. The dimension from baseline to centreplane at Stations 1, 3, 4, 6 and 8.
2. The sheerline height expressed as a distance below "top of template" at Stations 2, 3, 4, 6 and 8.
3. The sheerline height at the stemhead above baseline.
4. The height of the **waterline** for Stations 4 and 6.
5. The **beam**, calculated from the horizontal distances from template to **sheerline** at Stations 2, 3, 4, 6, and 8.

4.9 The skin profiles at Sections 2, 3, 4, 6 and 8 shall conform to Plan No. 93/1. The profiles shall be checked by female templates made to Plan No. 93/3. The templates shall touch the profile or clear by not more than 15mm in a radial direction when the templates are applied flush with the centreplane In addition the profile of each section shall be a fair continuous convex curve without knuckles or any features which could act as a particle breaker (spray rail).

4.10 The profile of the bow between Station 2 and the stem, shall be a fair curve, as shown on Plan 93/1.

4.11 A floor creating “watertight” compartments is permissible providing that:

(a) It is not less than 300mm below the **sheerline**.

(b) It incorporates a channel of 140mm minimum width extending to the skin of the **hull** for at least the full length of the keel flange. Internal mouldings may form the floor of the channel if the density of the moulding at the floor of the channel is no less than that of the keel pad and if it is securely bonded to the keel pad.

(c) Self bailers shall not be fitted through internal mouldings.

4.12 The plan width of the cockpit floor, aft of the **shrouds**, shall not be less than 600mm.

5. BUOYANCY

The **boat** shall have a minimum of four separate "watertight" compartments that are capable, in the absence of the removable buoyancy, of allowing the **boat** to float level if the cockpit is flooded and of keeping the **boat** afloat if all but 50% of the compartments are punctured. All “watertight” compartments shall be capable of being drained.

Removable buoyancy apparatus shall provide not less than 443kg buoyancy, not less than 100kg of which shall be forward of the points of intersection of the **shrouds** with the deck. The buoyancy shall be securely fixed or contained within the **boat** and shall be so distributed that the **boat** will float level when swamped with all "watertight" compartments flooded. Any one unit of the apparatus shall provide not more than 130 kg buoyancy nor less than 1kg buoyancy. Integral forms of buoyancy shall not contribute to the removable buoyancy apparatus for the purpose of this Rule.

6. KEEL

The following Rules apply to the **keel** in its finished condition.

6.1 The **fin keel** shall be of cast iron with a finished weight of 181kg plus/minus 12kg. The finish is optional, but holes shall not be filled with materials of greater density than cast iron. The finished weight shall be recorded on the measurement certificate

6.2 The configuration of the **keel** and keel flange shall conform in shape to that indicated on Plan No. 97/2.

6.3 The profile shall be checked by a female template made to Plan No. 97/2. The template shall touch or clear by no more than 13mm when applied flush to the top edge of the flange.

6.4 The sections shall be checked by four female templates made to Plan No. 97/2. The templates shall touch or clear by not more than 5mm (measured normal to the surface) when applied at positions defined on the **keel** from markings transferred from the profile template.

6.5 No keel sections parallel to the baseline of the profile template shall have a concavity of more than 1mm.

6.6 The width of the keel sections parallel to the baseline in the area between 300mm and 500mm above the extension of the baseline of the profile template shall be 37mm +/- 5mm at their points of maximum chord width.

6.7 The width of the **keel** in the area between 500mm above the extension of the baseline of the profile template and a line 30mm below the top of the flange shall not be more than 50mm.

6.8 The plan width of the keel flange shall be 130mm plus/minus 6mm with a maximum of 10mm radius on all four corners and on all four edges. The thickness of the flange, 10mm in from the edges shall be not less than 10mm.

6.9 Fairing pieces are prohibited around the keel flange. The keel flange shall not be rebated into the **hull** and the upper edge of the flange shall not clear the **hull** by more that 10mm at any point.

6.10 The **keel** weight may be adjusted to conform with B6.1 by cavities within an area of 695mm to 795mm measured from the aft tip of the **keel**.

6.11 The fore end of the **keel** shall not be less than 3860mm or more than 4040mm from the **hull datum point** measured parallel to the base line.

6.12 There shall be not less than 4 pairs of stainless steel bolts or studs with a minimum diameter of 9mm. Bolts or studs shall be arranged in pairs opposite each other on the port and starboard side of the flange at not less than 50mm centres and the fore and aft pairs shall be within 100mm of the keel flange ends.

7. RUDDER

7.1 The profile shall be checked by a female template made to Plan No. 97/2. The template shall touch the **rudder** or clear by not more than 13mm at any point when it is applied flush with the leading edge which shall not deviate from a straight line by more than 1.5mm.

7.2 The thickness of the **rudder** shall not exceed 45mm and fairing pieces are prohibited.

7.3 The fore-end of the **rudder**, when the **rudder** is in the fore and aft position, shall be not less than 710mm or more than 762mm from the **hull datum point** and the gap between the top edge of the **rudder** and the **hull** at the centreplane, shall not vary by more than 5mm.

7.4 The centre line of the **rudder** stock shall intersect the aft deck at a point not less than 470mm nor more than 736mm from the aft face of the transom.

7.5 The **rudder** and stock together shall weigh not less than 3.8kg. The stock shall be made of solid stainless steel with a diameter of not less than 18mm or of solid bronze with a diameter of not less than 23mm, or a stainless steel tubular shaft with an outside diameter of not less than 25mm and a wall thickness of not less than 2.5mm.

8. WEIGHT

8.1 The **hull weight** in dry condition, including specified removable buoyancy apparatus, hatch covers and all fittings permanently fixed by screws, bolts, glue or resin, but excluding **fin keel**, **keel** bolts or studs, **rudder**, tiller, sheet winches, pump, **mast**, **rigging**, **sails** and equipment, shall be not less than 138kg.

8.2 If the **hull weight** is less than defined, **corrector weights**, total weight not exceeding 21kg, shall be through fastened and be clearly visible within the cockpit area. Each **corrector weight** shall be identified with its individual weight, which shall be clearly visible for inspection, and the number and individual weight of each corrector weight shall be recorded on the measurement certificate.

Corrector weights may subsequently be removed after a period of not less than one year from the original date of registration subject to the **hull** being presented for reweighing by an **Official Flying Fifteen Class Measurer** in the same condition as for B8.1. **Corrector weights** may then be reduced in weight or removed and the new number of **corrector weights** and their total weight shall be recorded on the **Certificate** which must be ratified by the National Authority. Reweighing and adjustment or removal of **corrector weights** may not take place within one year of a previous weighing, except where substantial alterations to the **hull** are undertaken and the **boat** is completely remeasured in accordance with Rule A5.

9. MAST

9.1 The **mast spar** shall be of wood or aluminium alloy extrusion.

9.2 The **mast** shall have a continuous fixed groove which may or may not be integral with the **spar** section. The groove shall be included in the sectional dimensions only if both it and the **mast spar** are of aluminium alloy.

9.3 **Limit marks**, not less than 10mm wide, shall be clearly and indelibly marked on the **mast spar**, so that **limit marks** number 1, 2 and 3 are clearly discernible from outside the **boat** when *racing*, as follows:

Number 1 The lower edge of which shall be not more than 6860mm above the upper edge of **limit mark** No. 4.

Number 2 The upper edge of which shall be not more than 6248mm below the lower edge of **limit mark** No. 1.

Number 3 The lower edge of which shall be not more than 4724mm above the upper edge of **limit mark** No. 4.

Number 4 The **mast datum point**, the upper edge of which shall be at or below the **sheerline** with the **mast spar** in a vertical position.

9.4 Below **limit mark** No. 3 and 300mm above **limit mark** No. 2 the mean of both the fore and aft and athwartship section dimensions shall be not less than 60mm nor more than 80mm. The **mast spar** may be tapered above band No. 3.

9.5 The **mast weight** including normal permanent fittings and **rigging**, shall be not less than 10.5kg.

9.6 The centre of gravity of the **mast** in the same condition as in B 9.5 (above), with the **rigging** secured along the **mast** and with the tails led back if necessary, shall be not less than 1828mm above the upper edge of **limit mark** No. 2.

9.7 The **mast spar deflection** shall be tested by supporting it horizontally at the lower edge of **limit mark** No. 1 and at the upper edge of **limit mark** No. 4. When applying a load of 20kg at 1000mm below the lower edge of **limit mark** No. 3 the downward deflections at this position when the **mast** fore and aft axis is vertical and when it is horizontal, shall not exceed 145mm.

9.8 Rotating and permanently bent masts are prohibited, but a **mast spar curvature** of up to 50mm is permitted.

9.9 A mast jack or equivalent device, if fitted, shall be pinned so that it cannot be adjusted while *racing* and so that the maximum permitted distances of **limit marks** numbers 1 and 3 above the **sheerline** cannot be exceeded.

9.10 No part of **spinnaker pole** fitting(s) attached to the **mast** shall project more than 50mm from the **mast**.

9.11 The effective pivoting points of the gooseneck fitting shall be not more than 40mm measured from the aft side of the **mast**. If there is a groove in the **mast** for the **sail**, the measurement shall be to the foreside of the groove or prolongation thereof.

9.12 The heel of the **mast**, or the shoulder of the **mast** where there is a tenon, being the effective bearing surface of the base of the **mast** with the hog of the **boat** shall be not less than 450mm below the **mast** datum point.

10. MAST STEPPING

10.1 The foreside of the **mast spar** at deck level shall be not more than 3850mm or less than 3695mm from the aft face of the transom measured horizontally.

10.2 There shall be a mastgate to limit aft movement of the foreside of the **mast spar** at deck level to:

(a) a maximum of 1676mm from the point where the **headsail luff** or its extension meets the deck; and

(b) a minimum of 520mm from the point where the **shrouds** (or the extension of the line of the **shrouds**) meet the deck. Altering the position of attachment of **shrouds**, **forestay** or **headsail tack** is prohibited whilst *racing*.

10.3 There shall be no control of the movement of the **mast** at more than 50mm above the height of the deck, except that exerted by the sails and **booms** and the **rigging** specified in Rule B12.

10.4 The use of any device to alter the position of the **heel point** of the **mast** whilst *racing* is prohibited.

11. BOOMS

11.1 The main **boom spar** shall be of wood or aluminium alloy extrusion.

11.2 The main **boom spar**, including sail track but excluding other fittings, shall be able to pass through a ring of 125mm internal diameter.

11.3 When fitted to the **mast**, the upper edge of the **boom spar** (or its extension) shall intersect the **mast spar** at or above the upper edge of **limit mark** No. 2 when the **boom spar** is at 90^{o} to the **mast spar**.

11.4 An outer **limit mark** not less than 10mm wide, shall be marked on the main **boom** so that it is clearly discernible when *racing* with its inner edge not more than 3000mm from the aft side of the **mast** measured along the top of the **boom spar**. If there is a groove in the **mast spar** for the **sail**, the measurement shall be to the foreside of the groove or prolongation thereof.

11.5 Permanently bent main **boom spars** are prohibited but a **boom spar curvature** of up to 10mm is permitted.

11.6 The **spinnaker pole**(s) may be of any material. The overall length of the **spinnaker pole**(s), including fittings, shall not exceed 2000mm.

12. MAST RIGGING AND FITTINGS

12.1 The **mast rigging** shall consist of one pair of **shrouds** and one **forestay**, which shall be of galvanised steel or stainless multi-strand wire diameter not less than 2.3mm. The effective attachment to the **hull** shall also be of galvanised or stainless steel or of bronze construction. There shall be one pair of **spreaders** which shall be of aluminium alloy.

12.2 The **rigging points** of the **shrouds** shall not be more than 150mm above the lower edge of **limit mark** No. 3. The distance between the points of intersection of the line of the **shrouds** with the deck or rubbing strakes shall be not less than 1270mm. The points of intersection with the deck or rubbing strakes shall be not more than 45mm outside the **sheerline**.

12.3 The **rigging point** of the **headsail luff** wire or its extension shall be at, or below, the lower edge of **limit mark** No. 3.

12.4 The use of a **forestay** is optional, however if a **forestay** is fitted, it shall be separate from the **headsail luff** wire. The **forestay** or its extensions shall have a **rigging point** between the **headsail rigging point** and a point 80mm above the lower edge of **limit mark** No. 3 and shall meet the deck not more than 280mm nor less than 5mm forward of the **headsail luff** wire.

12.5 Adjustment of the **spreaders** or the length of the **shrouds** is prohibited whilst *racing*.

12.6 The extension of the line of the top of the **spinnaker halyard** when held taut at right angles to the **mast** shall meet the foreside of the **mast** not more than 102mm above the lower edge of **limit mark** No. 3. If led through an eye or a block no part of such eye or block shall extend more than 76mm from the foreside of the **mast**.

12.7 The type and material of all other **mast rigging** and fittings is optional.

12.8 Kicking straps are permitted, but these must be fixed to the centre line of the hog or to the **mast**.

12.9 (a) No **sail** shall be sheeted over or through an outrigger, except as permitted in Rule 12.9(b). An outrigger is any fitting or other device so placed that it could exert outward pressure on a **sheet** or **sail** at a point from which, with the **boat** upright, a vertical line would fall outside the **sheerline**.

(b) (i) Any **sail** may be sheeted to or led above the main **boom**.

(ii) A **headsail** may be sheeted or attached at its **clew** to a **spinnaker pole**, provided that a **spinnaker** is not set.

(iii) For **spinnaker sheets** attached to the **clews** of a **spinnaker** and for lines attached to the **spinnaker sheets**, outriggers of not more than 50mm are permitted, provided they are within 100mm fore and aft of the **shrouds**.

[This rule changes RRS 50.3]

13. SAILS

13.1 **Measurement**

13.1.1 Measurement shall be carried out in accordance with the Equipment Rules of Sailing (ERS).

13.1.2 The Rules in B.13 are **closed class rules**. Where a term is used in its defined sense, it is printed in "**bold**" type if defined in the ERS, and in "*italic*" type if defined in the Racing Rules of Sailing (RRS).

13.1.3 **Sails** shall comply with the current **Class Rules** (see Rule A5).

13.2 **Certification**

13.2.1 See Part A.

13.3 **Sail Identification**

13.3.1 The sail identification shall comply with the RRS, except that national letters may be placed in front of the numbers at the same level.

13.3.2 The class insignia shall conform with the dimensions and requirements as detailed in Plan number 7. A gold/yellow coloured insignia may be used by current and former World Champion helmsmen of the Flying Fifteen Class.

13.3.3 Sail numbers shall be issued by the **Certification Authority.**

13.4 **Sailmaker**

13.4.1 Sailmaker is optional**.**

13.5 **Mainsail**

13.5.1 **Construction**

(a) The construction shall be: **Soft sail, single ply sail.**

(b) The **body of the sail** shall consist of **woven ply**. The **ply** fibres shall be of polyester.

(c) The **sail** shall have 4 **batten pockets** in the **leech** and shall be closed at the **luff** end.

(d) The **leech**, between the **aft head point** and the intersection of the **leech** and the upper edge of the upper **batten pocket**, shall be straight or hollow.

(e) The following are permitted: Stitching, glues, tapes, bolt ropes, corner eyes, headboard with fixings, Cunningham eye or pulley, batten pocket elastic, battens, **mast** and **boom spar** groove slides, **leech** line with cleat, two **windows**, tell tales, sail identification, sail shape indicator stripes, sailmaker labels.

13.5.2

Dimensions	Minimum	Maximum
Leech length		6530mm
Half width		2015mm
Three-quarter width		1150mm
Top width		130mm
Primary reinforcement		340mm
Secondary reinforcement:		
from **sail corner measurement points**		1020mm
for **flutter patches**		140mm
for **chafing patches**		1020mm
for **batten pocket patches**		175mm
Tabling width		40mm
Seam width		20mm
Total **window** area		$0.3m^2$
Window to **sail edge**	150mm	
Headboard width measured at right angles to the **luff**		102mm
Batten pocket length:		
upper pocket:		
inside		782mm
other pockets		
inside		1035mm
Batten pocket width:		
inside		60mm
Head point to intersection of **leech** and centreline of uppermost **batten pocket**	1250mm	
Clew point to intersection of **leech** and centreline of lowermost **batten pocket**	1250mm	
Batten pocket distances, measured between the intersections of the pocket centrelines and the **leech**	1200mm	

13.6 **Headsail**

13.6.1 Construction

(a) The construction shall be: **Soft sail, single ply sail**

(b) The **body of the sail** shall consist of **woven ply**. The **ply** fibres shall be of polyester.

(c) The **leech** shall be straight or hollow between the **aft head point** and the **clew point**.

(d) The following are permitted: Stitching, glues, tapes, corner eyes, Cunningham eye, **luff** hanks, **luff** wire, **leech** line with cleat, **windows**, tell tales, sail shape indicator stripes, sailmaker labels

13.6.2

Dimensions	Minimum	Maximum
Luff length	4030mm	4115mm
Leech length		3886mm
Foot length		2362mm
Foot median		3870mm
Foot irregularity		35mm
Top width		40mm
Primary reinforcement		275mm
Secondary reinforcement:		
from **sail corner measurement points**		825mm
for **flutter patches**		100mm
for **chafing patches**		825mm
Tabling width		40mm
Seam width		20mm
Total **Window** area		$0.3m^2$
Window to **sail edge**	150mm	

13.7 **Spinnaker**

13.7.1 Construction

(a) The construction shall be: **Soft sail, single ply sail.**

(b) The **body of the sail, primary reinforcement,** and **secondary reinforcement** shall consist of **woven ply**. The **ply** fibres shall be of polyester or polyamide.

(c) The **sail** shall be symmetrical.

(d) The following are permitted: Stitching, glues, tapes, corner eyes, recovery line eyes, tell tales, sailmaker labels, sail identification.

13.7.2 The **leech lengths** and **half leech points** are determined, then the **sail** shall be measured folded along its **centreline** with the **leeches** together. The **head point** is defined as the highest point of the **sail** at the **head.**

Dimensions	Minimum	Maximum
Leech lengths measured around the **leeches**		4725mm
Distances from **clew points** to **mid foot point** measured around the **foot**		1830mm
Distances between points on the **leeches** 2350mm from the **head point** (measured around the leeches) and a point on the centre line 2350mm from the **head point**	1460mm	1760mm
Foot median		5300mm
Difference between **leeches**		50mm
Primary reinforcement		295mm
Secondary reinforcement:		
from **sail corner measurement points**		885mm
for **spinnaker recovery patches**		350mm
Tabling width		40mm

Dimensions	Minimum	Maximum
Seam width		20mm

13.8 **Additional Rules**

13.8.1 **Sail setting when *racing*:**

(a) **Mainsail**

(i) The highest visible point of the **sail**, projected at 90^{o} to the **mast spar**, shall not be set above the lower edge of the **mast spar limit mark** No. 1.

(ii) The intersection of the **leech** and the top of the **boom spar**, each extended as necessary, shall not be aft of the fore side of the **boom spar outer limit mark** when the **sail** is set.

(b) **Headsail**

The **tack point**, measured along the line of the **luff**, shall not be less than 100 mm above the deck when the **sail** is set. The depth of any step or concavity in the deck, excluding the spinnaker chute, between the breakwater and the stem head shall be added to this measurement.

13.8.2 **Sail Limitations**

(a) Registration

(i) Not more than two **mainsails**, two **headsails** and two **spinnakers** shall be registered in the first twelve months. Thereafter not more than one **mainsail**, one **headsail** and one **spinnaker** shall be registered in each twelve month period commencing on the anniversary of the date on which the original measurement of the **boat** was completed, except that in the event of the change of ownership of the **boat**, one additional **mainsail**, one additional **headsail** and one additional **spinnaker** may be registered by the new owner in the corresponding twelve month period.

(ii) Any **boat** competing in a World Championship or qualifying event referred to in Paragraph 4 of the Championship Regulations may have one additional **mainsail**, one additional **headsail** and one additional **spinnaker** registered in the corresponding twelve month period.

(iii) A **sail** may be replaced in the event of genuine loss or damage beyond reasonable repair, provided that the **sail** has been registered within the previous four calendar years, and that the replacement **sail** is approved by an Approved Class **Measurer** of the **Certification Authority** of that **boat**.

(b) When *Racing*

Not more than one **mainsail**, one **headsail** and one **spinnaker** shall be carried on board when *racing*.

(c) During Championships

At International, National, State and Area Championships, not more than two **mainsails**, two **headsails** or two **spinnakers** shall be used. When it is satisfied that a **sail** has been lost or damaged to such an extent that it cannot be used, the Race Committee may authorise the use of a replacement **sail.**

14. PROHIBITIONS

14.1 Competitors shall use no device designed to position their bodies outboard other than stiffeners worn under the thighs, hiking straps and hobbles. Hiking straps and hobbles shall not extend outboard of the **sheerline**.

Any system attached to the **crew** shall have a quick release device capable of being operated whilst the system is under load.

[This rule changes RRS 49.1]

14.2 Self draining cockpits are prohibited, except as provided within these Rules.

14.3 **Double luffed**, **venturi** and zipped sails, and loose footed **mainsails** are prohibited.

14.4 Any device or devices which indicate, transmit, receive, or collate data related to wind speed, boat speed, or boat location are prohibited.

Devices which indicate time, wind direction, or boat direction are permitted, provided they cannot receive or transmit data.

14.5 A **boat** shall neither make nor receive radio communications whilst *racing*. This restriction also applies to mobile telephones. A Notice of Race and/or Sailing Instruction may change this Class Rule B 14.5.

14.6 More than 4 self-bailers are prohibited (no one of which shall have an effective drainage area of more than 650mm^2).

14.7 Except as permitted in Rule 14.4, electric, hydraulic and pneumatically powered devices are prohibited.

15. EQUIPMENT

The following equipment shall be on board when *racing*:

15.1 Two hand bailers each of at least one litre capacity or one hand bailer of at least one litre capacity and one pump.

15.2 One paddle of minimum overall length 1000mm and minimum weight of 0.4kg.

15.3 One anchor, minimum weight 2kg, with not less than 18 metres of line of 6mm minimum diameter. The anchor can be made up to weight by the addition of chain provided that the weight of chain does not exceed 0.6kg.

15.4 One buoyancy aid for every person on board.

15.5 A towing fairlead of stainless steel construction, with a minimum internal diameter of 25mm and minimum gauge of 4mm, shall be fitted within 700mm of the stem head.

16. CREW

16.1 There shall be two persons on board when *racing.*

16.2 A competitor's clothing and equipment shall not weigh more than 10kg, excluding clothing (including footwear) worn only below the knee.

17. ADVERTISING

Advertising shall comply with ISAF Regulation 20.

Advertising chosen by the **crew** is permitted as restricted by ISAF Regulation 20 Advertising Code, and by the following restrictions:

(a) Advertising shall be limited to not more than two advertisers.

(b) Advertising on hulls may be displayed over not more than 50% of the **hull** length.

(c) Advertising on **spinnakers** may be displayed without any additional restrictions.

(d) Advertising of one advertiser may be displayed on either the **mainsail** or the **headsail** and it may be on both sides of the sail. It shall have a width no greater than two-thirds of the length of the foot of the sail, and a height no greater than two-ninths of the length of the foot of the sail. On the **mainsail**, it shall be placed below the national letters and sail numbers.

(e) Advertising of one advertiser may be placed on the **mast** and the **boom**, within one-third of the length of the **mast**, and two-thirds of the length of the **boom**.

OFFICIAL PLANS

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