



## **MEASUREMENT AT IODA EVENTS**

### **BASICS**

Layout of measurement area:

- The Measurement Area must be close to the boat park and the perimeter must be free of cars, vans and trolleys in order to allow good access to it.
- It is especially important that the circulation of cars with trolleys do not cross the perimeter in order to avoid problems with the flow of the Teams to be measured.
- It has to be possible to allow access to the Area only to those to be measured by means of doors or fences; as well as the organization of flow channels of boats on the perimeter.
- The Measurement Areas must be indoor and with a surface of not less than 200 m<sup>2</sup>
- The entry and exit of the Area should be on opposite sides, in order to allow a proper flow of the Teams and equipment to be checked. This small detail is fundamental for a fast and well-controlled process.
- It should be possible to close and secure the Area during lunch-time and also at night.
- Electric Light and power for scales and computers is vital.

Racing days:

- During racing (once measurement has finished), the Area can be used for other purposes, but at least 60m<sup>2</sup> must remain available for the Measurement Committee in order to do the controls (weight of boat, sails, etc).
- The Measurement Committee will require a rubber boat. The most suitable size is **6m length and 40CV** with a central helm if possible and it should be capable of towing competitors to the shore for measurement checks. The boat will need a proper anchoring system and a fixed pole for the Measurement flag.
- **The Measurement flag should be white with the letter "M" printed on it.**

### **EQUIPMENT CONTROL: STAMPS AND STICKERS**

Stamps:

- The stamps for the sails (2 minimum) must be of a size between 7x5 and 10x10cm approx and shall include the Championship logo.
- New clean stamp pads, should be made available (2 minimum) with a supply of waterproof ink.
- Oil free inks are safer and long lasting on Dacron fabric.



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Stickers:

- Stickers should be circular and of good waterproof quality vinyl, 5x5 and 10x10cm approx and shall include the Championship logo, **over a transparent background** in order to allow a visible signature under the sticker.
- The number of stickers needed per boat is six (6), this number should be multiplied by the number of entries accepted, and some 10% extra should be made available.

Markers and others:

- Recommended waterproof markers are (Staedtler Lumocolor F or Edding 750). The spars are usually black, so there's a need for waterproof markers with white, silver or gold ink.
- Pens, pencils, paper and a stapler should be made available.

**MEASUREMENT STATIONS:**

Code letters and colours of each station have been taken according to those used at previous World Championships. The helpers described below must be competent and available for **all** measurement days. The person in charge of each station shall be able to communicate in fluent English.

**STATION A: MEASUREMENT SECRETARIAT - CHECK-IN**

**Note:** Station A can be arranged at the same desk as Station F (the form is the same)

**Function:** Receive, check and classify the documentation shown by the Team Leader one hour before the measurement of his or her Team starts. The person in charge must be fluent in English and if possible in other languages (French, Spanish, German, etc...). Once the documentation is verified, the measurement forms for the Championship, which will be used at the other stations, must be completed. Statistics of the equipment used shall be recorded at that station (Access or Excel File including sail number, manufacturer of hull, sail, spars and foils).

**Staff:**

- 1 Measurer: shall be experienced in the measurement procedures, but also with the documentation of the Optimist Class. This job requires a person who can deal with Team Leaders in a calm and pleasant way, in circumstances that can often be hectic and pressured.
- 1 Helper: will help the Measurer with the documentation.
- 2 Helpers: will help the Measurer and will be in charge of entry to the Measurement Hall (check if the boats and equipment are dry,



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buoyancy bags inflated but out of the straps, mainsheet removed from blocks, towing line, foils and spars out from covers, etc.)

*Total: 4 people*

**Equipment:**

- 1 table/desk with 3 chairs.
- 2 chairs for the Team Representatives: Coach and Team-leader.
- 50 Folders or similar (depending on number of teams and sailors)
- Measurement Forms (1 full set per country)
- Pens, pencils, paper, stapler, etc

**STATION B: FOIL CONTROL** (*Yellow Measurement Form – same form for Stations B and C*)

**Function:** Check the shape of foils using the templates. Check the materials, positioning of fittings of the rudder and the centre of gravity of the daggerboard. Verify the weight of foils, serial numbers and manufacturers. Place the stickers on checked equipment.

**Staff:**

- 1 Measurer
- 1 Helper

*Total: 2 people*

**Equipment:**

- 3 tables of 1,5 x 1 meters.
- 2 chairs.
- 1 Daggerboard Measurement Template.
- 1 Rudder Measurement Template
- 1 Digital scale for 5kg. (with a precision/error of maximum 10gr)
- Pens, pencils and paper.
- Waterproof markers.

**STATION C: CONTROL OF SPARS** (*Yellow Measurement Form – same form for Stations B and C*)

**Function:** Check mast, boom and sprit. Verify that each piece has the sail number but also the serial number. Check the measurement bands on the mast and boom, which shall be permanently fixed. Check the positioning of holes and fittings and also the length of the sprit. Place the control sticker on each piece over the signature.

**Staff:**

- 1 Measurer
- 1 Helper

*Total: 2 people*



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**Equipment:**

- 1 table (3x1 meters) for the measurement templates
- 2 chairs
- Pens, pencils and paper

Waterproof markers

**STATION D** (*Green Measurement Form*)

**D1: HULL WEIGHT**

**Function:** Check mould numbers, sail number on the mast thwart and ISAF Building Fee sticker (which must be the same as those stated on the green form by the Measurement Secretariat).

Check that the hull complies with the weighing specifications (dry, no lines, buoyancy bags out of the straps, etc.) and weigh them.

Check the accuracy of the scales.

It is important to place this station on a level concrete floor (not on wooden or grass floors) and protected from the wind.

**Staff:**

- 1 Measurer
- 1 Helper

*Total: 2 people*

**Equipment:**

- 1 table with 2 chairs
- 1 digital scale for 50Kg (with a precision/error of maximum 50gr)
- 1 certified Weight of 35Kg
- 1 master list with all the controlled boats including weights and correctors if needed
- Wooden pieces of 300, 200, 100 y 50 gr. aprox. (up to 10 or 15Kg) to supply teams as weight correctors for hulls
- Pens, waterproof markers, paper, etc

**D2: HULL CONTROL**

**Function:** Check the items previously defined by the IODA T.C.

A random measurement control of boats will be made, which may include: hull shape and materials, positioning of fittings, etc.

Place the control sticker and signature on the mast thwart.

**Staff:**

- 1 Measurer (member of IODA Technical Committee where possible)
- 1 Helper

*Total: 2 people*

**Equipment:**

- 1 IOD'95 Measurement Bar, IODA templates for IOD'95



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- 1 Table with 2 chairs.
- Trestles with foam on top. Approx. Height: 700mm. (to put the hull on)
- Pens, pencils and paper.
- Waterproof markers.

**STATION E: SAILS** (*Red Measurement Form*)

**Function:** This is the most complicated station due to the number of items to be controlled. For that reason the station is divided into 2 or 3 areas (depending on the event) (2 or 3 sail measurement tables).

Check the material of the sail and reinforcements, length of leech, luff, foot, diagonals, concavities and convexities at the leech, sail width, sail measurement band, foot mid point, etc.

Check positioning and dimensions of Class logo, batten pockets, reinforcements, sail numbers, etc.

***It is crucial to enter on the form the sail button number of the sail.***

**Staff:**

- 1 Measurer per table: who must be experienced in Optimist sail measurement
- 1 Helper per table

*Total: 2 people per measurement table*

***It is very important to have good coordination between the measurer and the helpers at this station in order to allow a fast and accurate measurement process.***

**Equipment:**

- 2 or 3 tables of 2,3 x 2,9 meters, which must be completely flat and smooth (like melamine i.e.). If possible, the table should be made with one single board with reinforcements underneath. Height of the tables 90cm
- 2 or 3 Sail Measurement Templates (available from IODA Secretariat)
- 1 table, 3 chairs
- 1 Digital Micrometer
- 2 or 3 Flex meters (tape measure) class II of at least 3 meters length (Stanley or similar)
- 2 Official stamps of the Championship
- Waterproof ink for cloth (like STK Berolin R9 or similar)
- 3 Ink pads
- Waterproof markers, pens, pencils and paper

**STATION F: CHECK-OUT** (*White Measurement Form – same form as for Station A*)



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**Function:** Check the coloured forms previously filled in at each station. When everything is found to be correct, then issue the "Regatta Measurement Certificate" (same form as the check in / check out) which will allow the competitors to participate at the event with the equipment checked by the M.C.

When one or more items are found to be "not OK", re-measurement will be needed.

When possible, re-measurement time will be at the end of the day, or in periods with a less heavy workload.

Once measurement is complete, all forms must remain on the Check out station organised by Teams and in folders.

Good co-ordination between Check-in and Check-out is needed

**Check-out is usually completed at the Check-in table with 1 additional helper.**

**Staff:**

- 1 Measurer
- 1 Helper

*Total: 2 people*

**Equipment:**

- 1 table
- 3 chairs
- Forms: Regatta Measurement Certificate (white)
- Pen, pencil, paper
- 1 master list (which shall include the names of the Teams and competitors that have finished Measurement).

**Extra Equipment:**

- Radio and/or phone for communications with the Race Office, Race Committee Boat, International Jury.
- Photocopier if the Race Office is not nearby.
- T-shirts and/or caps to identify the measurement committee members.
- Fridge containing water.
- Wastepaper baskets.
- Acetone and cloth.
- 1 Table 2x2 meters outside the hall for repairs.
- Transparent tape (scotch tape)

IODA TECHNICAL COMMITTEE

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