ORR
IN WATER MEASUREMENT PROTOCOL FOR STANDARD/SISTER SHIP CERTIFICATE

Boat Name _____ **Sail Number** _____ **Flotation Date** _____

1. Measurement of freeboards needs to be done in flat water. Usually this means an early morning time frame.

2. The owner or owner's representative should set up the boat as outlined by the **ORR Measurement Inventory** and **ORR Measurement Condition Checklist**.

3. The measurer should fill out these two documents. The measurer and owner/owner representative should initial in all appropriate places. Note: The **owner** must sign the **ORR Measurement Inventory** form.

4. Once the boat is in measurement trim the four freeboard measurements are to be made. Make sure the boat is not rocking, no mooring lines are attached, and the boat has settled to a steady state. They are:

	***Girth Station (from USSA)**	**Freeboards (decimal feet)**
A. Port side forward girth station as defined by out of water measurement of standard/sister ship.	_____	_____
B. Port side aft girth station as defined by out of water measurement of standard/sister ship.	_____	_____
C. Starboard side forward girth station as defined by Out of water measurement of standard/sister ship.	_____	_____
D. Starboard side aft girth station as defined by out of water measurement of standard/sister ship.	_____	_____

***The forward and aft girth station locations are obtained from US SAILING Rating Office. Call 401-683-0800**

These measurements shall be taken in decimal feet to two places of accuracy with a steel tape. Metric units may be substituted where appropriate, in meters to three decimal places. The forward girth station measurement is made at the sheer point as defined by the **ORR** Sheer Point Chart attached. Extend the tape from the sheer point perpendicular to the water until the tip just makes a meniscus with the water then take the reading at the sheer point and record above.

The stern measurements are made in the same fashion with the aft girth location obtained from the **US SAILING** Rating Office.

Signed _____ (Owner) _____ (Measurer) _____(Date)

NOTES

1. Owner and measurer will initial each item after the Measurement Condition Check, Measurement Inventory Check, and Measurement Protocol have been made.
2. The completed Measurement Protocol, Measurement Condition Checklist, and Measurement Inventory will be returned to the Rating Office for retention.

Please use this area to sketch a detailed **SHEER POINT DIAGRAM**. Necessary for files and future reference. Thank you.

ORR MEASUREMENT CONDITION CHECKLIST

Boat Name _____ **Sail Number** _____ **Flotation Date** _____

BELOW DECKS	**Initials Owner**	**Measurer**
1. All sails removed from boat.	_____	_____
2. Ballast, anchors, chain and batteries fixed and sealed to hull structure in clearly marked stowage.	_____	_____
3. Heads, bowls, sinks, etc. are dry.	_____	_____
4. Bilges and other possible areas where water may collect are dry.	_____	_____
5. Tankage and voids condition checked.	_____	_____
6. Navigational and cooking equipment stowed in normal position.	_____	_____
7. No clothing, bedding, food or stores on board.	_____	_____
8. Mattresses, cushions, and pillows stored in normal position (dry).	_____	_____
9. No portable equipment in front of mast (if there is move to sole behind mast).	_____	_____
10. Safety equipment stowed in normal position but not forward of the mast.	_____	_____
11. All stowages opened and checked.	_____	_____
12. No life raft or dinghy on board.	_____	_____
13. Centerboards raised unless to be locked down whilst racing.	_____	_____
14. Tankage and voids condition checked.	_____	_____
15. Sheets, guys, etc. on cabin sole abaft the mast.	_____	_____
ON DECK		
16. Measurement bands PAINTED on spars.	_____	_____
17. All standing rigging tight.	_____	_____
18. Running rigging tight. Halyards led to the foot of the mast and tails to their normal operating position.	_____	_____
19. Running backstays aft and tight, running forestays to the mast.	_____	_____
20. Masts raked aft to the limit of adjustment, not forward of vertical.	_____	_____
21. Boom at low point, horizontal, centered and secured against movement.	_____	_____
22. Spinnaker pole(s) on deck in normal stowage. (Number of poles _____). (If a yacht's poles are not being used for inclination, they must be removed when inclining)	_____	_____

ORR MEASUREMENT INVENTORY

Boat Name _____ **Sail Number** _____**Flotation Date**_____

FOR THE INFORMATION OF OWNER AND CREW
With certain exceptions, **ORR** requires the boat to be measured with gear and fixtures aboard as when raced, in quantity, weight and location. The validity of the Rating Certificate is dependent on a true and proper completion of this inventory form and continued maintenance of the yacht in accordance with this inventory.

The owner shall complete this inventory and together with the measurer check and initial each item. Clarification of any item may be made on the diagram at the bottom. If the owner is not present the following must be signed prior to issuing the rating certificate.

I authorize _____ as my representative and understand my responsibilities as laid down in the **ORR** Rule.

Signed _____ (Owner)

1. Interior Ballast

Description	Weight	Distance from stem	Initials Owner	Measurer

2. Anchor(s) at least one to be on board with chains

3. Batteries

4. Tools				
5. Engine (or o/b in fixed stowage).	**Make** _____ **Model** _____			

6. Tanks, including portable tanks (essentially empty). _____ _____

Use	Type	Capacity	Distance from stem	Condition at time of measurement	Owner	Measurer
_____	_____	_____	_____	_____		
_____	_____	_____	_____	_____		
_____	_____	_____	_____	_____		
_____	_____	_____	_____	_____		
_____	_____	_____	_____	_____	_____	_____

7. List of items normally forward but placed abaft the mast on cabin sole for measurement.

_____

_____

_____

_____

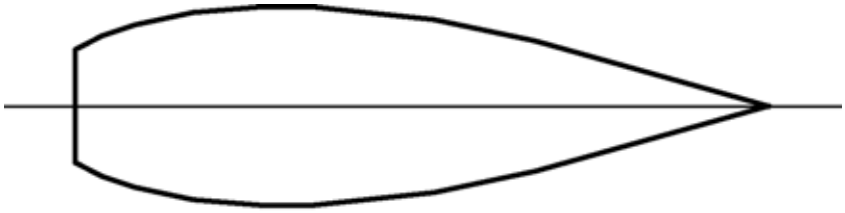
Total weight _____ _____ _____

8. One set only of portable deck equipment on the cabin sole abaft the mast for measurement.

Weight _____ _____ _____

9. Other major items and items unusual in weight, quantity or location.

Description	Number	Weight	Distance from stem	Owner	Measurer



10. I certify that this is a true record of storage at the time of measurement afloat.

Signed _____ (Owner) _____ (Measurer) _____(Date) _____

NOTE

1. The completed document will be returned to the Rating Office for retention.