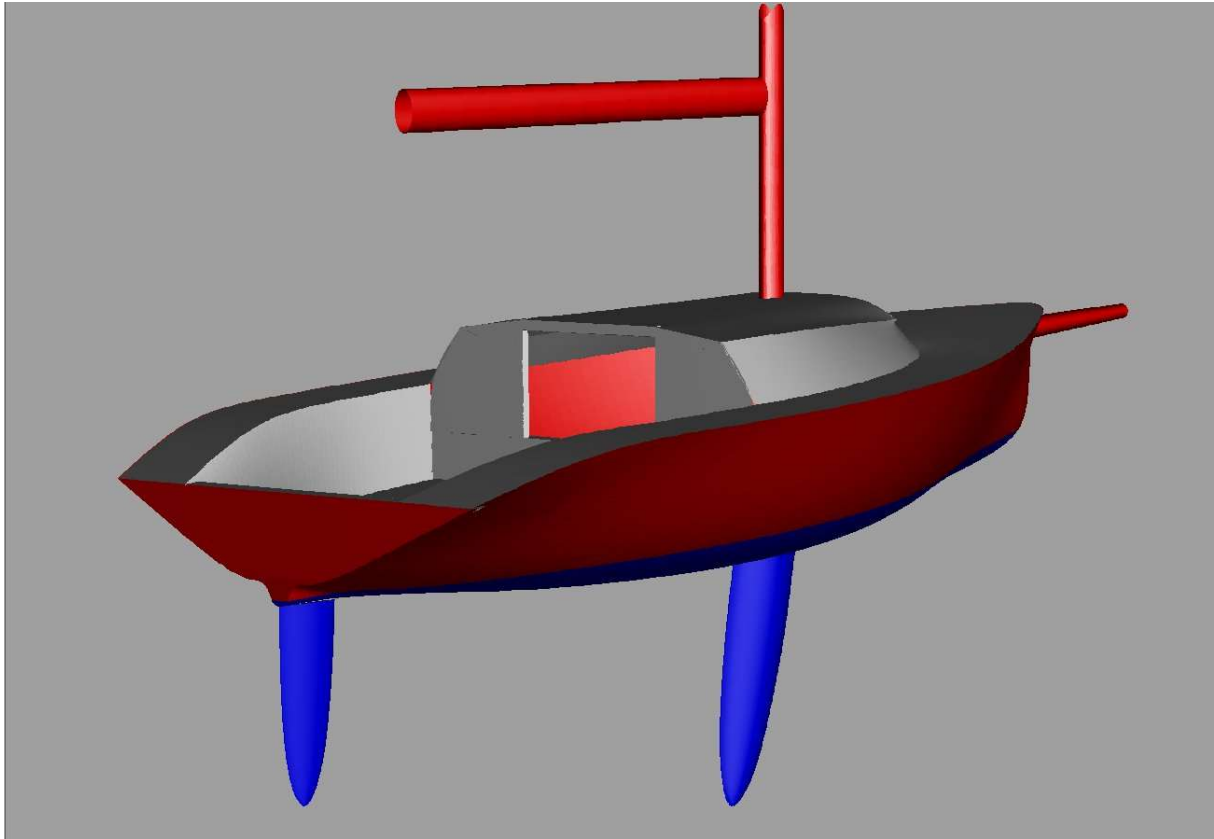
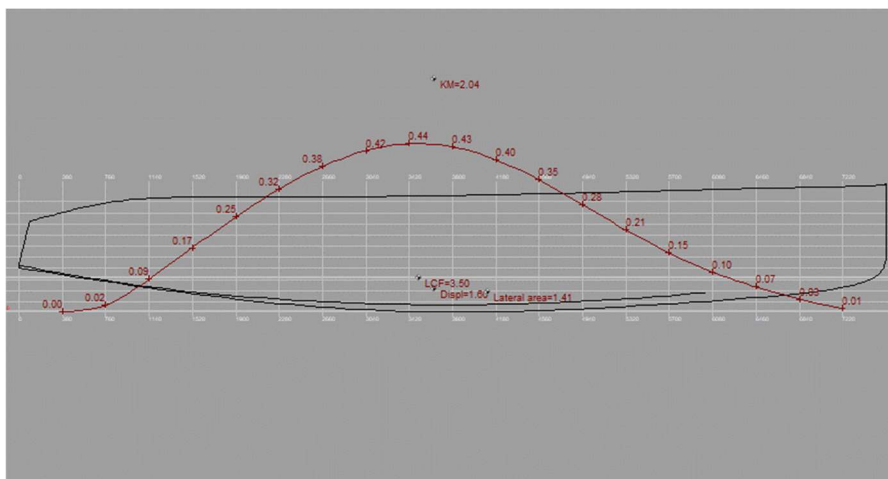


# IRC #01 Racer



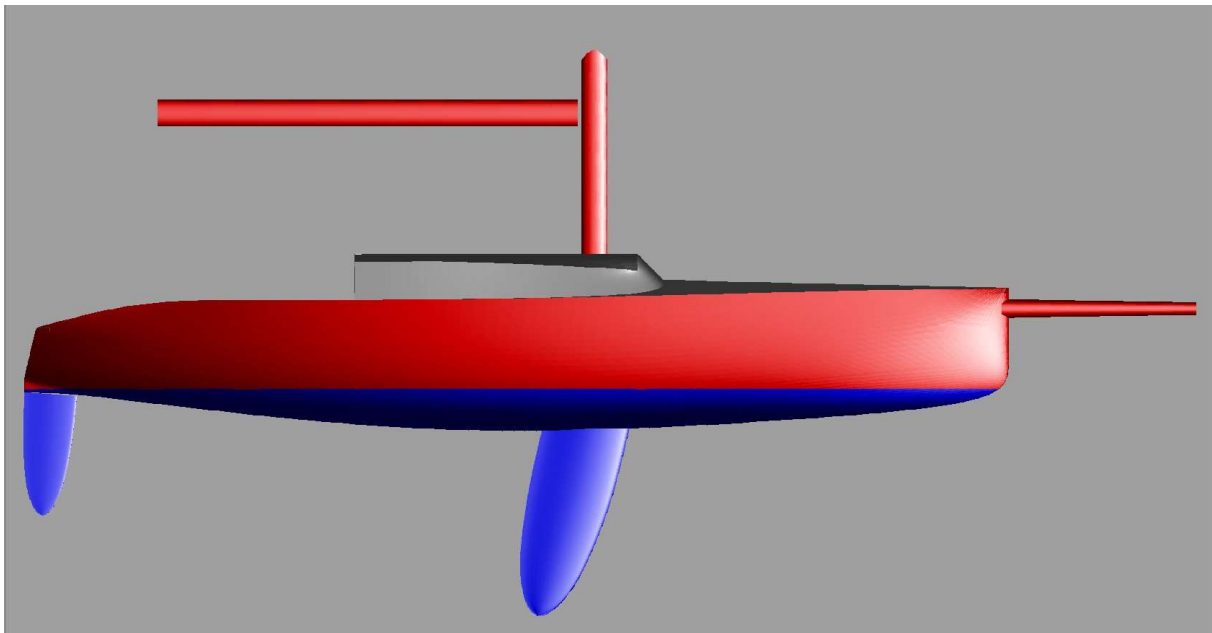
**Project** : IRC #01 Racer  
**Designer** : Delta Consultants-P.Visser  
**Design length** : 7.600 m  
**Length over all** : 9.060 m  
**Beam over all** : 2.774 m  
**Draft** : 1.750 m  
**Midship location** : 3.040 m  
**Water density** : 1.025 t/m<sup>3</sup>  
**Appendage coefficient** : 1.0000



# IRC #01 Racer

## Volume properties:

Displaced volume	:	1.583 m <sup>3</sup>
Displacement	:	1.622 ton
Total length of submerged body	:	7.533 m
Total beam of submerged body	:	1.908 m
Block coefficient	:	0.0629
Prismatic coefficient	:	0.5327
Vert. prismatic coefficient	:	0.1010
Wetted surface area	:	12.099 m <sup>2</sup>
Longitudinal center of buoyancy	:	3.652 m
Longitudinal center of buoyancy	:	-1.447 %
Tranverse center of buoyancy	:	0.000 m
Vertical center of buoyancy	:	1.623 m



## Midship properties:

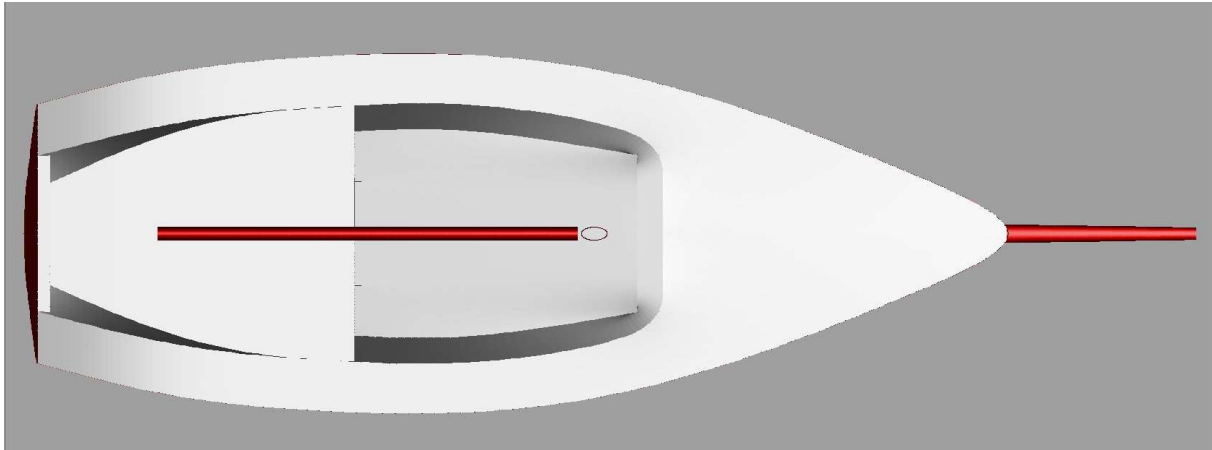
Midship section area	:	0.394 m <sup>2</sup>
Midship coefficient	:	0.1181

## Waterplane properties:

Length on waterline	:	7.522 m
Beam on waterline	:	1.908 m
Waterplane area	:	8.951 m <sup>2</sup>
Waterplane coefficient	:	0.6227

# IRC #01 Racer

Waterplane center of floatation	:	3.494 m
Y coordinate of DWL area CoG	:	0.000 m
Half entrance angle of DWL	:	20.664 degr
Transverse moment of inertia	:	1.815 m <sup>4</sup>
Longitudinal moment of inertia	:	23.358 m <sup>4</sup>



## Initial stability:

Vertical of transverse metacenter	:	2.769 m
Tranverse metacentric radius	:	1.147 m
Longitudinal transverse metacenter	:	16.380 m
Longitudinal metacentric radius	:	14.757 m

## Lateral plane:

Lateral area	:	2.651 m <sup>2</sup>
Longitudinal center of effort	:	3.682 m
Vertical center of effort	:	1.357 m

## Hull characteristics above waterline:

Lateral wind area	:	4.681 m <sup>2</sup>
Z coordinate of wind area CoG above DWL	:	0.384 m
Distance from bow to wind area CoG	:	2.646 m

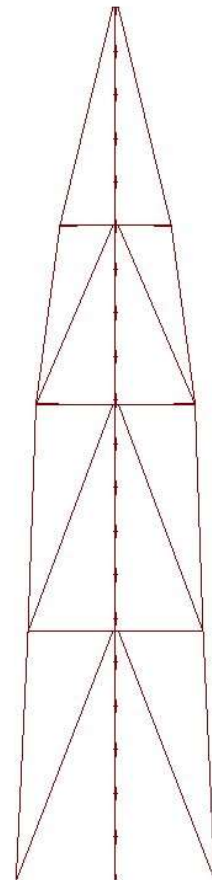
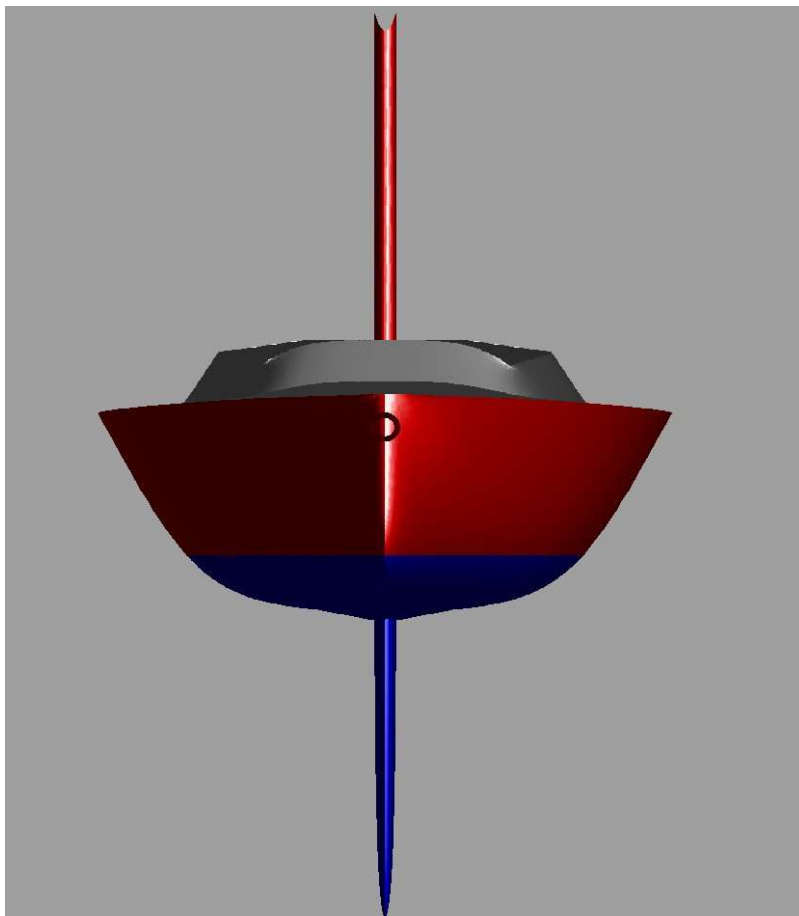
# IRC #01 Racer

The following layer properties are calculated for both sides of the ship:

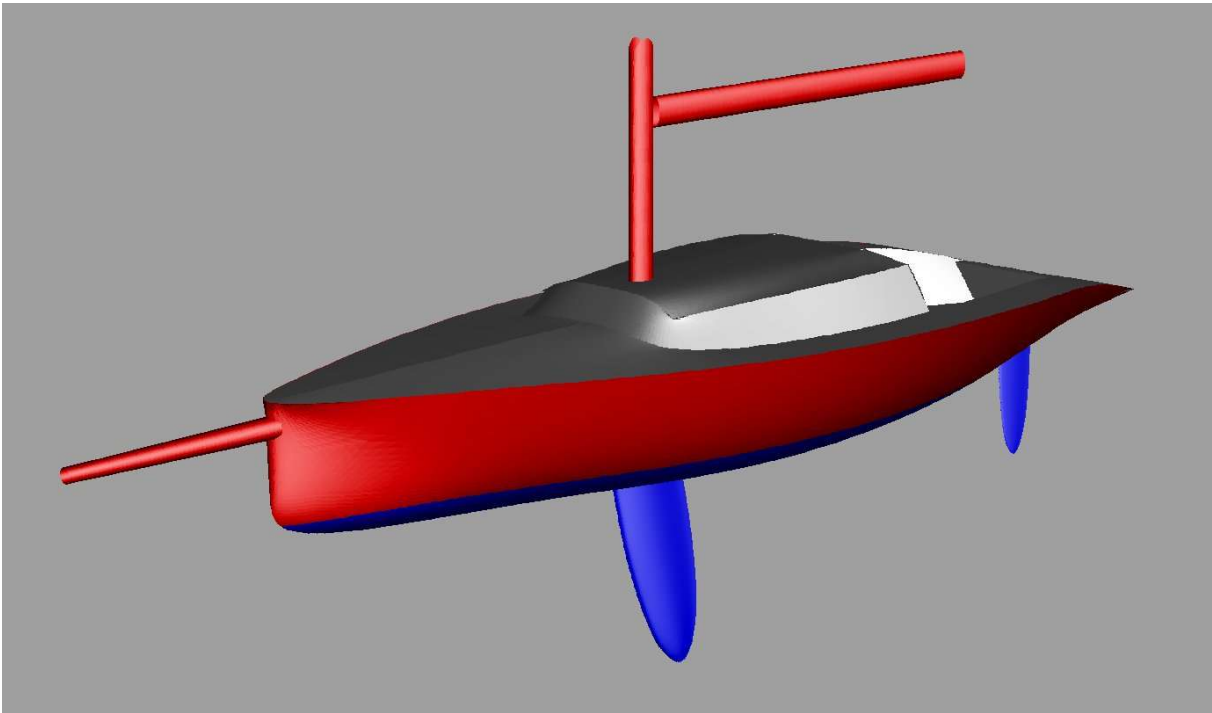
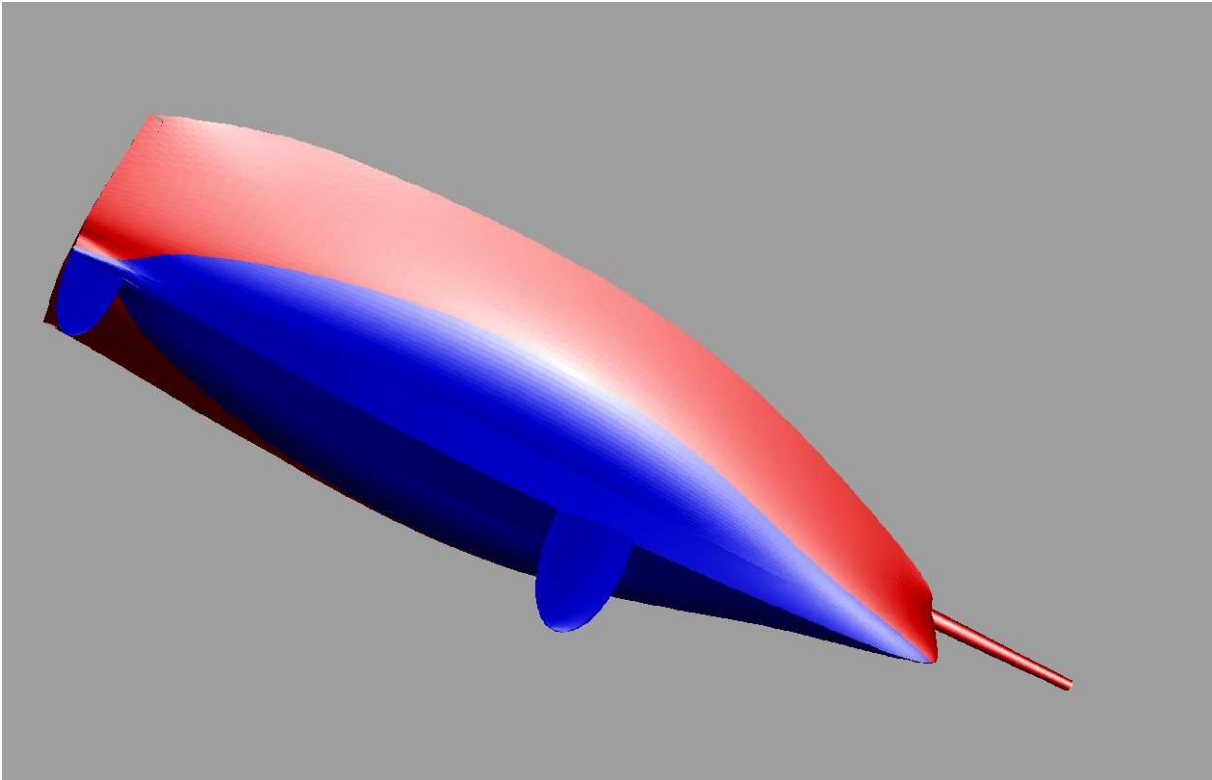
Layer	Area	Thickness	Weight	COG X	COG Y	COG Z
	m <sup>2</sup>	mm	tonnes	m	m	m
hull	23.785	50.000	0.595	3.577	0.000	1.880
deck	16.209	25.000	0.203	2.796	0.000	2.264
cabin	5.762	25.000	0.072	3.654	0.000	2.706
Semi ellipse keel NACA6	1.671	0.000	7.250	4.194	0.000	0.833
Semi ellipse rudder NAC	0.600	0.000	0.050	0.173	0.000	1.313
Total	53.711		1.6000	3.401	0.000	2.038

NOTE 1: Draft (and all other vertical heights) is measured above the lowest point of the hull! (Z= 0.000)

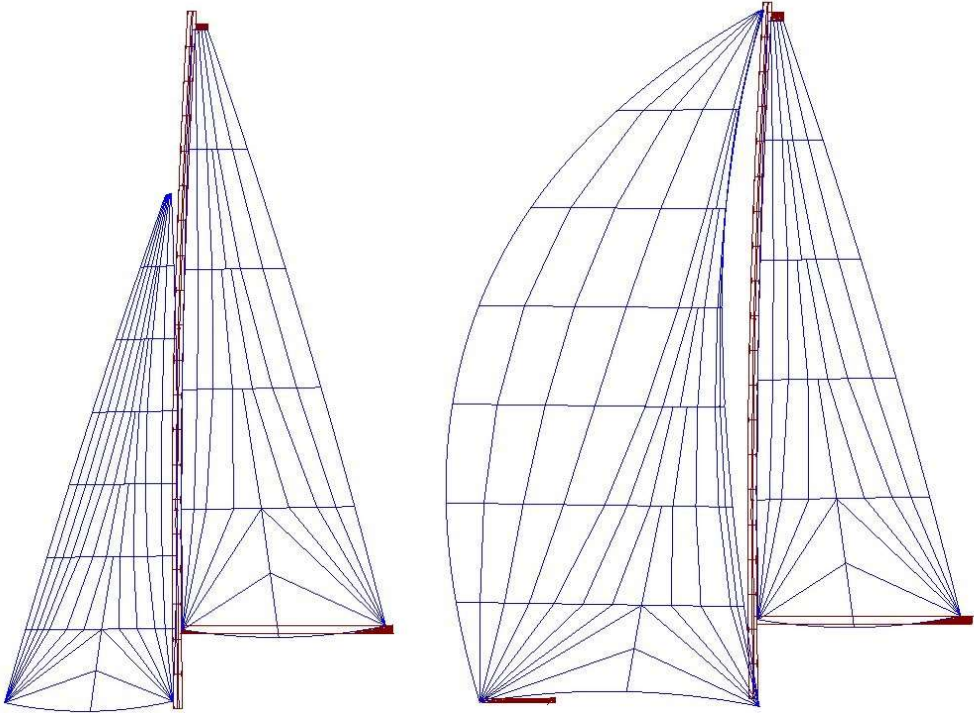
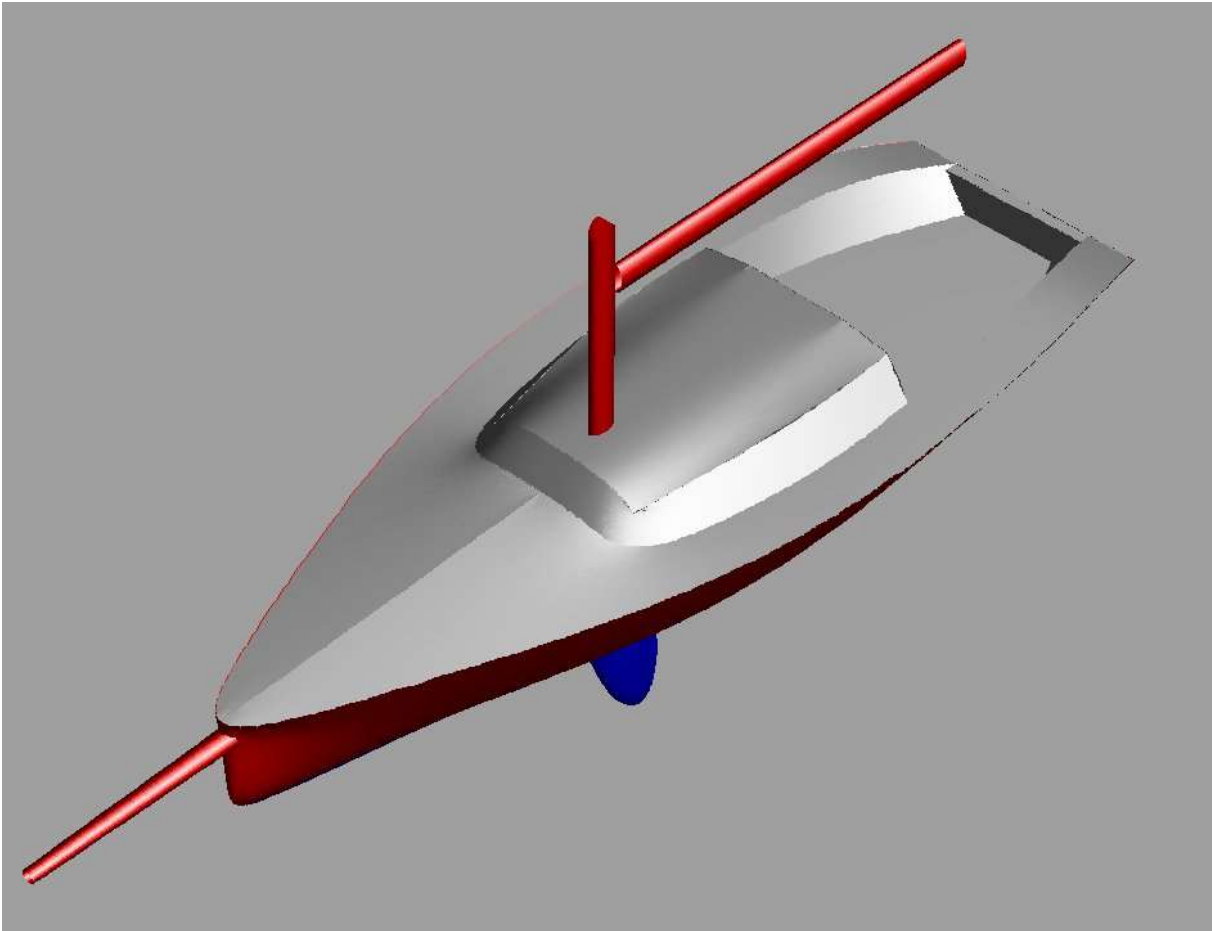
NOTE 2: All calculated coefficients based on actual dimensions of submerged body.



# IRC #01 Racer



# IRC #01 Racer



Main 18m<sup>2</sup> High Aspect 12.5m<sup>2</sup> Code Zero 41m<sup>2</sup>

# IRC #01 Racer

