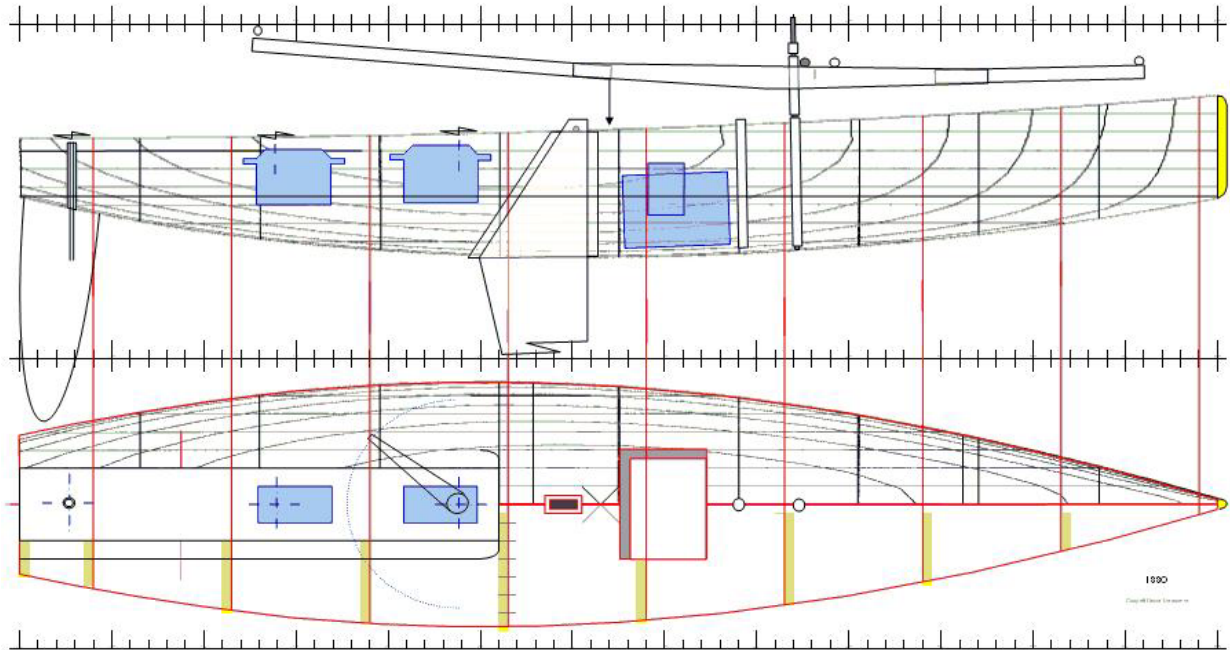
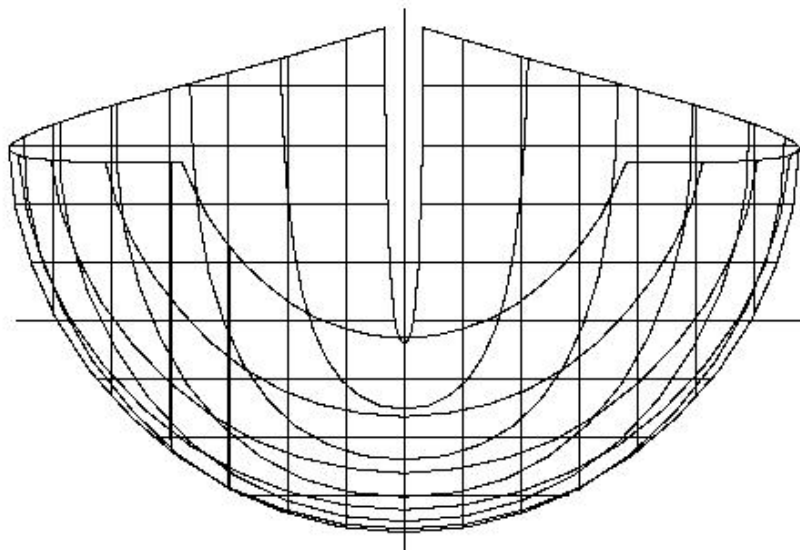


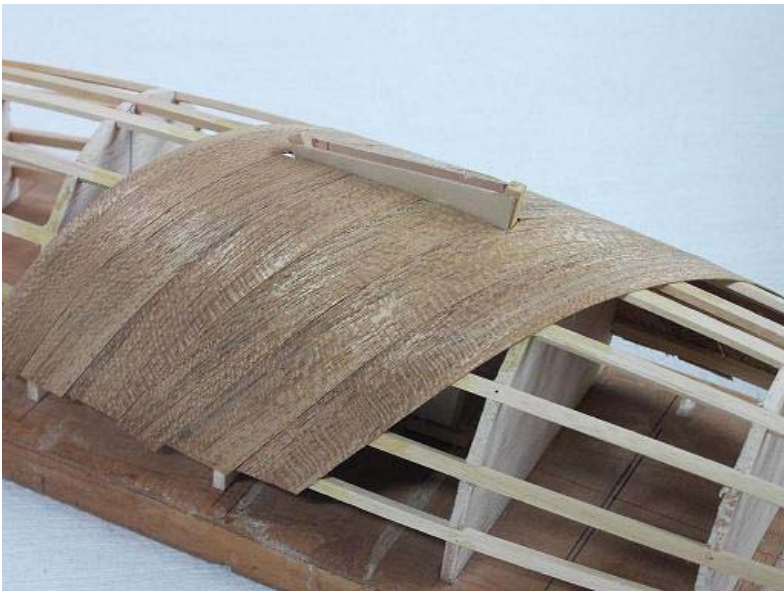
Construction report of the RG-65 Isso, sail Number 14 (FRA).



This model called Isso is a reasonably narrow hull with circular sections.



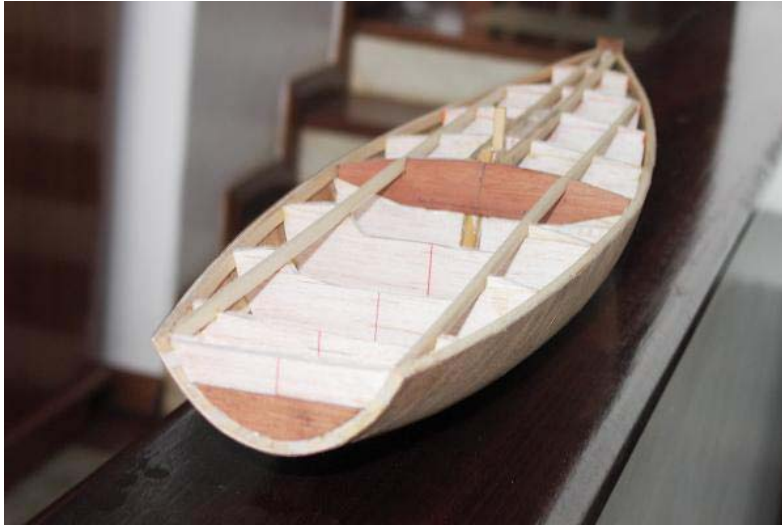
The main section data measured after construction are : Max breadth 135mm, breadth waterline 120mm, hull depth 34mm. The drawings were finalized end-2003, and the model was built early in 2004 in moulded wood (bois moulé) :



First wood layer



Second wood layer



For more details about this construction method, refer to <http://navi.modelisme.com/article189.html> and <http://navi.modelisme.com/article215.html>

The longitudinal battens and frames were kept inside the hull, and a layer of fibreglass cloth was added on the outside. This made for a strong hull and an easy deck construction, but penalized the weight somewhat. The general arrangement was based on servos laid on deck, allowing a simpler installation and ensuring optimal water tightness of the deck. Everything is under reach at all times, a hatch is required only for the batteries ; it is closed with a wide plastic tape.



la Vache Sacrée, FRA13 (left) and Isso, FRA14 (right)

The 6mm diameter carbon mast is not stayed, but inserted in a tube into the hull. Two mast tube locations are provided as the mast position for rig A is further forward.

The weight breakdown is as follows :

Hull	270g
RC	210g
Ballast and keel	520g
Rig	50g
Rudder	10g
Total	1060g

Four sails were cut, three main sails and a jib, to be used in three rig arrangements. Rig A is a max height una-rig, the purpose of which is to seek wind high up, rig B a low aspect ratio sail and rig C dedicated to strong winds. These sails are all installed on the same mast and swing rig boom.

Rig	A	B
Main sail height (cm)	106.0	85.0
Main sail max width	26.0	28.0
Main sail area (dm ²)	22.5	16.5
Jib height (cm)		55.0
Jib max width		17.0
Jib area (dm ²)	0	5.0

The model was immediately tested in strong conditions with rig C. The servos never failed despite a number of severe submersions, the tightness of the standard servos along the shaft is safe.



Only the rig A and B were since used in regatta.



Rig A



Rig B



Above and below : Regatta in Brazil



The only weak point is a tendency to nosedive downwind. Rather than reduce sail while the upwind sailing is still fine, the plan is to build a GRP hull using the original model as a mould, and increase the bow height to 70mm. Some 100g of hull weight could be saved as well in rebuilding the hull in fibre. A second keel with 600 or 650g of ballast is considered.