Sails For Sustenance
Knock Down Boat Initiative
Statement of Requirements

Draft Version 2.1

The SFS kit boat is intended to expand the fishing capability of local Haitian fishermen. Their typical fishing day is to leave in the morning on the shore breeze going between 2 and 15nm from shore, fish all day, and return on the sea breeze. The fishermen typically fish via swim netting and hand lines with some trolling if the conditions allow. The most important aspect of the design will be cost per boat delivered, with an ideal cost of materials at something less than $2,000USD.

The current vision is of a 'Completely Knocked Down' boat that can be flat packed, palletized and shipped to Haiti, where local communities or a local boat yard can finalize assembly and construction. However, this concept is envisioned in order to restrain shipping costs. Accordingly, the true determinate is the number of boats that can be shipped in a 20' or 40' containers, not the method of construction. So, designs capable of being stacked or nested are suitable.

Concept of design:
1) To provide the most cost-effective boat possible to substance level fisherman.
2) Boat 'kits' will be compiled in the US or Europe then containerized and shipped to target countries.
3) Semi-skilled local labor should be able to finish construction with provided materials.

Requirements:
1) 16-20' in length
2) Suitable for 12-24 hour trips in open water 10-15nm from the coast of Haiti.
3) Capacity: minimum
   - 2-3 occupants
   - 100# of fishing gear
   - 200# of fish
4) Propulsion:
   - Primarily by sail and rowing
   - Provisions for a 2-3hp motor are encouraged but not necessary
5) Special considerations:
   - Easy access in and out of the water to set nets.
   - Unsinkable is mandatory, self-rescuing from a capsize is preferred.
6) Capable of being beach launched by 2 fit people without a trailer or ramp from a sand/pebble protected beach. The design does not need to be capable of sailing through breakers.

Judging criteria: in no particular order
1) Suitability of the design for envisioned fishing trips;
2) Ease of operation under oar and sail power;
3) Cost of materials + Cost of shipping to Haiti per boat. (The more boats/kits that can be fit into a container the better); and
4) Elimination of tight tolerances and precision construction methods to allow semi-skilled labor to assemble the kits.

Suggestions:

1) Construction methods - while in no way mandatory the competition committee suggests considering stitch and glue construction methods or its derivatives with marine plywood and polyester resin.

Cost Considerations:

1) Shipping per 20' container is estimated at $2,500. So, the more boats that can be fitted per container the better.
2) Haitian labor costs will be assumed to be $1.00 USD / hour
3) All plywood will be assumed to be Marine Grade ply.
4) Bill of Material cost will include every part, piece, and screw. It is not acceptable to include an unaccounted for 'ancillary' category. Commercially available parts and supplies in the US are frequently impossible to source locally, so all parts must be itemized and included in the kit.
5) Fiberglass sheathing over wood may be made optional, so long as the design is not dependent on the sheathing for structural integrity.

Final Notes:

The organizers welcome and encourage non-traditional designs and materials. Other than as specifically noted there are no mandatory requirements.

For any questions, concerns, or suggestions, please contact the organizers via email:

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