



**FORD Yacht Club**

**Father's Day Cardboard Boat Race**

**June 20th, 2010**

**Bring Your Boat for Judging**

**Prizes for:**

**Most Elaborate Design**

**Fastest**

**Best Costumes**

**Best Theme**

**People's Choice Award**

**Register by June 19, 2010**

**For rules go to:**

**[www.fordyachtclub.com/cardboardregatta](http://www.fordyachtclub.com/cardboardregatta)**

**Questions and Registration:**

**Call Steve or Wendy Gravlin**

**313-670-3408 or [wgravlin@gmail.com](mailto:wgravlin@gmail.com)**

**Father's Day grill your own steak roast/buffet in the evening!**

# Rules

Have Fun!

Racers must wear PFDs!

You can propel your boat with anything made from the allowable materials. i.e. cardboard paddles, sails, etc.

## Allowable Supplies

- Corrugated Cardboard
- Elmer's Wood Glue
- Duct Tape
- Quick Dry caulking (latex)
- Outdoor Paint
- Optional Polyurethane for top coat
- Marking Pens & Pencils

## Forbidden Materials

- Two part glues
- Fiberglass resins and Plastic Epoxies
- Metal
- Plastic
- Foam Core Boards or Styrofoam
- Pasteboard or Chipboard types of Cardboard
- Wood

## When to Start

Although you can build a boat in a weekend, building a good boat that will last through multiple races will take a bit more time. Allow at least a couple weeks so the glue will dry.

## Boat Building Process

Design Considerations

Set a goal: are you building a Fun Boat or a Speed Boat?

Plan the right size boat – a box 1 x1 x 3 will float 180 pounds... so, if your boat is big enough to hold you, in all probability it will also be big enough to float.

Flat Bottoms tend to be less “tippy” than V-shaped bottoms.

The lowest center of gravity (sitting in the bottom of the boat) is the most stable position. Kneeling or standing... you'll probably tip over.

## Dimension Considerations

Longer boats go faster, but they are harder to turn.

Boats shorter than 10 feet are difficult to steer straight.

10-12 feet in length seems to be just about right.

Don't make your boat sides too high. For example, 18 inches in height will allow room to sit and paddle without the edge of the boat blocking your arms.

Plan width based on the number of people. If there will be just one paddler, don't go wider than 30 inches. If there are two, try about 48 inches.

When you are ready to go, start with flat sheets of cardboard. Any bends or folds in the cardboard will weaken the boat, so try to get flat, unused sheets of cardboard if at all possible. Once you have the flat cardboard, draw the design on it. Then you are ready to start cutting & bending.

Hint: To bend cardboard cleanly, make a dent or a crease in the flat cardboard using a blunt rounded tool like the handle end of a crescent wrench.

Step 4: Usually a boat will be made up of multiple pieces, assembled together and glued.

Hint: After gluing, use a clamp to hold the glued parts together until dry (1/2 – 1 hour).

### **Waterproofing Tips**

Paint all surfaces of the cardboard before gluing (rollers paint faster than brushes). A polyurethane porch and deck enamel works good. Use 3 coats.

Caulk edges (cut nozzle at angle to make a U-shape to run along edges).

Glue after painting and caulking. Squeegee glue across entire surface to be glued.

Avoid oil-base stains, caulk and glue. The oil soaks into the cardboard, may never dry and this will weaken the cardboard. No hot-melt glue guns allowed – this glue “melts” on warm days.

### **Construction**

Reinforced paper tape works best over caulked edges and seams. Duct tape is bad...it shrinks when painted. Clear tape is bad... it melts when painted.

3 layers of cardboard are plenty strong for the bottom of the boat.

Caulk all of the folds and corners to seal then paint all of the individual pieces.

Any type of leftover paint could be used for this. (Note: You can caulk after painting.)

Put the pieces together and glue them. Once the glue dries, another round of caulking may be in order.

Now comes the fun part – painting and decorating the outside!

Don't Forget the Costumes! These can get pretty elaborate...

### **Cardboard Boat Preview**

Plan to bring your boat out to Ford Yacht Club on Saturday Night, 6 – 8 pm Spectators will vote for their favorite boat to win the “People’s Choice Award”.

### **The Great Cardboard Boat Regatta®**

Registration begins at 10 am on Sunday. Races will start by 11 am.

After registration, all boats go through a technical inspection. Nothing but cardboard, glue and paint... They'll be looking for things like Styrofoam, metal, screws.

Finally all dressed up and ready to go. Be prepared to carry your boat to the starting line.

Getting into the boat can be tricky. Watch your balance & don't capsize... Paddle Hard!!!

Bring a Cheering Section!