

United States - Class Catamaran Association

Spring News Letter 2003

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USACA Internet Address
<http://usaca.info/>

Fellow Sailors,

I hope this second newsletter finds everyone well and ready to get on with Summer and the up coming sailing season. This issue includes notices and articles which should prove to be a good read.

I'd like to take just a moment to reflect on the past year or so. In general the fleet has experienced steady growth. I think nearly all of the new boats that were left in the country after the Worlds have been sold. We see a rebirth of enthusiasm on the west coast. The Bristol fleet is steady and a other areas are emerging. This is all very encouraging. We have also enjoyed a truly great Worlds at Martha's Vineyard. This year was the third year of the winter circuit in Southern Florida. It's interesting to see that the A-Class is either the largest fleet or one of the largest fleets in these regattas. So it's safe to say that our fleet remains and is even emerging as the premier fleet in North America. This certainly reflects the unique qualities of the boat. It never ceases to impress me how similar the boats are even when they seem to be so diverse. It also impresses me how well the boat responds to all types of approaches to racing. Some boats obviously reflect many hours of hard thoughtful work in workshops throughout the country. Other boats are entirely stock with few modifications and when you line them up they are so similar in speed it's just amazing. Of course we see those great sailors who dominate but most will agree it has more to do with what's going on between the ears than in the water. So with that thought enjoy the escapades of one of our true tinkerers.

Please pay particular attention to the information on the North Americans in November. The venue should prove to be a great place for us to sail and enjoy a truly fun time in the New Orleans area. Be sure and do all your dieting before you arrive and don't plan to continue once there. B and Bs are at hand as are hotels and a superb state park for camping.

Many thanks to our contributors and to Martin Hamilton who puts this rag together for us. Hopefully we'll have a bit of a press release with our next issue concerning an effort to build a new A-cat right here in the USA. Stay tuned.

One last point, this will be your last newsletter unless you have paid your dues. Please support your association so we can support you.

Bob



USACA
C/o Ben Hall
17 Peckham Dr.
Bristol, RI 02809

FLYING RAT PROJECT

The 2002 World Championships provided a great benchmark for comparing boats, spars, sails and of course sailing technique. Once again the Aussies showed us the way. Glenn Ashby's performance was nothing less than remarkable. Glenn excelled throughout the varied conditions (5-20 kt.).

The weapon of choice for the 5 of the top 6 finishers was the Flyer. Many of the top sailors in the class have gravitated to this design due to its success in the previous three World Championships. Other competitive designs sailing were the Melvin Waterat, the Boyer Mk 5, the Marstrom and the Boyer Mk 4.

I had been tempted to go with the flow and sail a Flyer at the Worlds but I had a lot of time in my Waterat and it was setup exactly to suit my style of sailing. My speed at the worlds was quite good, especially in the 5-10 knot range and at the top end in 17-20 knot range.

After analyzing the results and on the water observations, I determined that if I could improve my existing boat just a little bit I'd be very close to Flyer performance in most conditions. The big question was how to improve this boat.

One of the most noticeable differences in the Waterat and the Flyer is the height of the bows. The lower windage bows of the Flyer are definitely a plus. The other noticeable difference between the Flyer and the Waterat was the under water shape of the bows from the main beam forward. The Flyer here is basically "U" shaped while the Waterat is "V" shaped. The Flyer shape allows for easier turns and less pitching.

I decided I liked the back half of my Waterat but wanted to change the bows to be more "Flyeresque". My first thoughts were to modify the existing bows by a series of pie cuts, tucks, adding etc. and then fairing the re-shaped bows. While talking with Andrew Gaynor (USA 133), he jokingly suggested to just cut the bows off and put on new ones kinds like "Prada" was doing on a regular basis in Auckland. I thought about it for a while and decided that this was "not a bad idea". The next step was to bounce the idea off Pete Melvin. Pete said he would take a look at the existing design to see if it made sense. Pete ran a bunch of numbers and proposed a new bow design that started 3" in front of the main beam. He did ask me "Why not do the whole boat?" The problem was I did not have time to make a whole new boat. I wanted to sail in the Tradewinds and A Cat "Olympic" Key Largo Regattas. It was already mid October and I needed the boat on the trailer ready to head South just after New Years.

The challenge was to make a set of female molds that would produce a set of parts (bows) that would exactly match

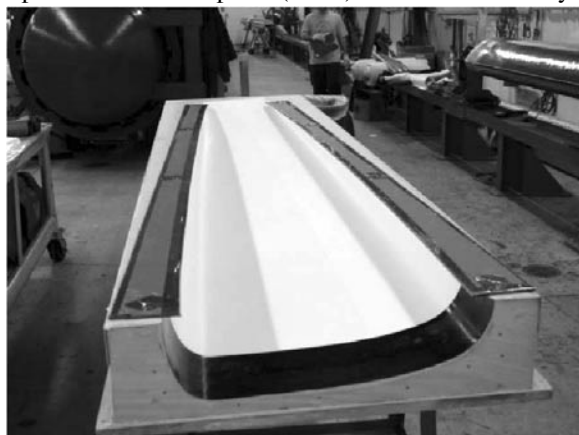
the existing hulls just in front of the main beam. This is where computers, DFX files, and CNC cutters make a job like this possible. Pete sent the lines files to Henry Elliot (C Class "Cogito" builder) who fired up his CNC router and cut the female molds. To reduce time and cost Henry chose dock Styrofoam as the mold material. After the shapes were cut, Henry covered the Styrofoam with three layers of 4 oz. Fiberglass cloth. We then sprayed the molds with Duratec and wet sanded them to 400 grit. We then Freekoted and waxed the molds. Instead of gel coat we sprayed Awlgrip 545 epoxy primer in the molds and let it dry overnight.

Prior to lamination we scotchbriated the 545 and wiped it clean. The laminate used (starting from the outside skin) was 4 oz. glass cloth, 6 oz. carbon cloth, 1/4" Nomex honeycomb and 6 oz. carbon cloth on the inside. We chose Gougeon Proset (laminating) epoxy resin. The entire laminate and core was put in the molds in one shot and then vacuum bagged. In the molding process we created a centerline flange in each half to have a good gluing surface.



Once the bow halves were molded, we glued the two halves together to make a complete bow section. The excess glue was cleaned up on the seam and then we were ready to attach the bow to the old half of the hull.

We put a 4" wide rebate (about .030 thick) in the area where the new bows joined the old hull. The core in the original hull is 3/8" Nomex honeycomb. The joining method ended up very simple. We dug out the core of the old hulls to a depth of about 1 1/4" but were careful to leave the inner and outer skins in tact. Since the new bows had the rebate and a 1/4" core, the bows were inserted into the 1 1/4" deep gap with lots of thickened epoxy adhesive.





We set up a rigid fixture to hold to two halves at the hulls in exact alignment (a lot going on here) while they were being bonded together. Once the bows were glued on, we taped the seam with a 4" band of carbon around the entire joint and then faired the area.

The next step was to "beam-up" the hulls. I had decided



to get rid of the previous bolt on method (OK but it did leak a bit and would require a frequent tightness check). I made the decision to glue the beams in place and over wrap the beam/ hull joint. This creates an incredibly stiff connection. The bad news was the boat would no longer be able to winter in my basement (door width only 7"). To improve water flow from the bow the over the beam we fashioned a "ramp" to fair the hull/beam joint. This ramp was foam covered with one layer of carbon cloth.



The final modification was install "rails" to the hull to make the boat max width for trapezing. Again we used shaped foam covered with one layer of carbon cloth.

The next step was sending the boat off to the paint shop. We used white Awl grip 545 Epoxy primer and

wet sanded the hulls to 400 (leaving a semi gloss finish).

After paint I installed a new bright blue Kinder tramp and reinstalled all the hardware. Wow the boat looked brand new!

It was now time to head off to Key Largo to try out



the "Flying Rat" for the first time. I was able to tune up with Mark Sellnau the day before the Tradewinds. Mark has a Waterat virtually identical to my boat (before the modification). In the lighter wind range our speed was very similar both upwind and down...So far so good...at least it wasn't slower. As the wind increased to the 14 knot I had a slight speed advantage... maybe due to less weather hull windage?? The other thing that was quite noticeable was the ease of turning the boat. This was most evident when making the turn at the bottom mark.

Now it was race time at the Tradewinds. Weather was nasty...cold... with a frigid 18-20 breeze kicking up a nice shop. These were great conditions to see if this modification was worth it. Good news...Three firsts... I am happy, the boat preformed well on all points of sail. Lower windage, easier turning, and less pitching all made small improvements around the course.

Stay tuned for Pete Melvin's next creation (this time the whole boat).

Ben Hall
Hall Spars
Bristol, RI



How to Install, Select and Adjust Mainsail Battens to Gain a Speed Edge

Mainsail battens come with the new mainsails we purchase or we buy the battens to replace our existing ones. Most of us stick the battens in the sail once and leave them alone until the sail wears out. I used to subscribe to this theory mainly because I did not know how to adjust the batten tension and how different batten shapes affected the sail shape. After sailing Tornado and AClass catamarans for several years, I learned that battens have a significant impact on sail shape and boat speed. Hopefully I can pass some of this information on to you.

Battens come in all shapes, sizes and kinds. The battens support the roach of the sail and they maintain the designed sail shape. (The roach is the sail area that extends past a straight line from the head to the clew of the mainsail). Some battens have an even thickness and others are tapered with one end thinner. If you are using tapered battens, always use the tapered end towards the luff edge of the sail and the thicker end on the leech of the sail. This way the bend of the batten matches the designed sail shape.

Full battens are classified by their draft position and bend characteristics. The draft position is the fore and aft location of the maximum amount of bend at a given bend pressure. This measurement is given in a percentage of the batten's overall length, starting at the inboard end. The poundage it takes to reach this maximum draft position is the weight of the batten. For example, a batten would be classified as 56 inches long x 5/8 inches wide x 40% draft x 6.5 lbs.

Sailmakers specify the battens to fit the designed draft position of the sail. The battens should maintain the sail shape rather than alter the designed shape. You can change the batten stiffness and tension to help maintain the design as the sail shape changes in the different wind conditions.

Battens are attached to the mainsail leech by batten pockets that allow batten tension adjustment. If you have this type of pocket, use just enough batten tension to remove the sail wrinkles for each different wind condition.

In a mainsail with full battens, the lower full battens should be a slightly tapered with an all-purpose weight to span a variety of wind ranges. These battens should be installed tight enough to just remove the vertical wrinkles or puckers around the batten pockets that appear while sailing. This tension will keep the sail smooth and not alter the designed sail shape. One note here is that the sail can stretch and the batten pocket adjuster can loosen while sailing. It is a good idea to tighten the battens each day before sailing in a multi-day regatta. You may even need to

tighten the battens in between races on heavy air days. You can usually tell if a batten is too tight by several clues. The clues for full battens are as follows: a sail shape that is too full, battens that will not invert in jibes and tacks for the wind strength and a draft position that is pushed too far forward in the sail.

The top three battens are the critical battens because the sail is narrower near the head and the upper sail shape is important to pointing and speed. Because of the smaller area in the head of the sail, the batten type and tension have a greater effect on the sail shape than farther down in the sail. To keep things as simple as possible, carry two sets of top battens. One set should be a light to medium air battens and the other set should be a heavy air battens. The light batten should be fairly light and soft and have the draft position around 45% to 50%. The batten should be fitted in the pocket with medium tension in light air so the batten will flop from side to side easily. In medium conditions, put the batten in the pocket firmly so the batten will remain inverted when you are trying to flop the batten from side to side by hand. The light air batten powers up the top of the mainsail by making it fuller, leading to a firmer leech with more leech return. The end result is more speed and higher pointing in these maximum power conditions.

The other top batten is a heavy air batten. This batten is stiffer and has the draft farther forward, around 40% to 42%. The advantage of a heavy air batten is that it pushes the draft forward in the sail, flattens the top of the sail and opens the upper leech. All of these things are depowering mechanisms that make the boat easier and faster to sail. The heavy air top battens are installed in the pockets very tightly because it is a stiff batten and this creates the tension the batten needs to take advantage of its designed shape. A batten under a great deal of tension has a hard time inverting during tacks and jibes. One solution to aid in flopping the batten from side to side is to spray the batten with a dry lubricant such as McLube. The lubricant reduces the friction between the pocket and the batten to allow the batten to move inside the pocket.

Carrying extra battens and changing battens for different conditions may sound like a lot of work, but making a sailboat go fast is the sum of a lot of little things. If you take the time to understand how battens work and how they affect the sail shape, battens are no different than any other sail control. They can be used as a tool to make your mainsail span the entire range of wind and sea conditions. Putting the right batten in before each race is just one more item to mark off of your pre-race check

Charlie Ogletree

Ullman Sails, Inc.
410 29th Street
Newport Beach, CA 92663
949-675-6970 phone
949-675-6276 fax
ullman@ullmansails.com

****Notice of Race****



2003 A-CLASS NORTH AMERICAN CHAMPIONSHIP

Hosted By
Pontchartrain Yacht Club
Mandeville, LA

November 11-14, 2003

Location - Pontchartrain Yacht Club is located on the beautiful north shore of Lake Pontchartrain in Mandeville, LA. Participants will get the opportunity to enjoy an historic and quaint lake front setting that has no high-rise condominiums and is lined with beautiful historic homes, restaurants, pubs, and coffee houses. Visit <http://www.pontyc.org/> to see the yacht club facilities.

Directions to Pontchartrain Yacht Club - From the east or west coming in on Interstate 12, take the LA 59 exit (do not confuse LA 59 with I-59 which is approximately 20 miles to the west of this exit). After leaving the exit intersection and heading south, stay on LA 59 to the fourth stop light (US 190). Go straight through this stop light until the road ends at Lakeshore Drive on the lake. Take a left and follow Lakeshore Drive until the road bends to the left (after the bend to the left, the road becomes Jackson Street). The yacht club is located in this bend to the left.

Accommodations in Mandeville and Covington
(all hotels are within 15 minutes of the yacht club)

Best Western - 985-892-2681

Courtyard by Marriot - 985-871-0244

Hampton Inn - 985-809-0019

Holiday Inn - 985-893-3580

Super 8 - 985-892-4470

Camping is available and recommended at Fountainbleau State Park (approximately 4 miles from the yacht club). Call 985-624-4443 for reservations and information

Pre-Registration

Pre-registration will be announced after the regatta entry fee is determined. Look for a revised posting of this notice of race in the near future that will detail entry fees and pre-registration deadlines.

2003 A-CLASS NORTH AMERICAN
CHAMPIONSHIP

Tentative Regatta Schedule

Tuesday - November 11th

10:00 AM - 5:00 PM - Measurement. For boats with valid boat measurement certificates and valid sail measurement certificates, measurement will consist of confirmation of boat weight only. For boats that do not have a valid boat measurement certificate and a valid sail measurement certificate, expect to be measured fully and plan to be present on this day. USACA Class Measurers will be on site.

5:00 PM - 7:00 PM - Registration and Check-In

Wednesday - November 12th

8:00 AM - 10:00 AM - Registration and complimentary coffee, juice, pastry, and fruit.

8:00 AM - 10:30 AM - Final Measurement

11:00 AM - Welcome Ceremony and Skipper's Meeting

12:30 PM - 1st. Warning Gun with 2-3 races planned with no races starting after 4:00 PM.

6:00 PM - Beer keg and Cajun Buffet Dinner at the yacht club

Thursday - November 13th

8:00 AM - Complimentary coffee, juice, pastry, and fruit.

11:45 AM - 1st. Warning Gun with 3-4 races planned with no races starting after 4:00 PM.

6:00 PM - "Road" Trip to New Orleans French Quarter on charter bus with dinner at one of the French Quarter's more popular restaurants. Charter bus will leave the French Quarter at 10:30 PM returning to the yacht club by 11:30 PM.

Friday - November 14th

8:00 AM - Complimentary coffee, juice, pastry, and fruit.

10:45 AM - 1st. Warning Gun with 3 races planned with no races starting after 3:00 PM.

6:00 PM - Beer Keg and Grill Out at the yacht club

8:00 PM - Awards Presentation

Event Contact - Bob Hodges at 985-871-9480 or E-mail
bobh79@bellsouth.net.

Notice of Race

CRAM's Cat Fight IV

Hosted by
The Catamaran Association of Michigan
In conjunction with Mount Gay Rum, The Cat House &
Animal Cancer & Imaging Center
Muskegon, Michigan

August 21, 22, 23 & 24, 2003

A full three days of racing on Lake Michigan It's a Mount Gay Beach Party! Come and enjoy a long weekend camping on the beach right at the regatta site. Parties - Friday and Saturday night. This is one of those "gotta attend" regattas.

The format allows competition between the fleets as well as in one design racing. The format will include five starts as follows*:

- #1 Portsmouth (D-pn) 66.5 and lower Class Legal Spinnaker Boats (Inter-18/20, Nacra F-18, Hobie Tiger, Hobie Fox, Mystere Twister etc.)
- #2 Portsmouth (D-pn) 66.5 and lower Class Legal Non- Spinnaker (Nacra 5.8 NA, Hobie20, P19Mx, N6.0, Mystere 6.0 etc.)
- #3 Portsmouth Class Legal (D-pn) 79.9 to 66.6 (Nacra 4.5, Hobie16, H18, N5.7, N5.5SL, Mystere 5.5 etc.)
- #4 Portsmouth All Single-handed Class Legal Boats 16' and over (Hobie 17, Nacra 5.5U, A-class, Inter17R, etc.)
- #5 Portsmouth Class Legal (D-pn) 80.0 and higher (Wave, Hobie14, Mystere 4.3 etc.) This start will probably have a shorter course.

*The starts are under review and may change prior to the regatta.

Trophies awarded to classes making a one design fleet by CRAM.

Cat Fight trophies will also be awarded to the five starts above.

All boats must be class legal per applicable class rules.

LOCATION: Launching at Muskegon State Park (616) 744-3480. Racing will be held on Lake Michigan

SCHEDULE

Thursday August 21	Saturday August 23
6:00 to 8:00 pm - Registration at the beach	10:00 am - Skipper's Meeting
	11:00 am - First race
Friday August 22	6:00 pm - Dinner and party at the beach
8:30 to 9:30 am - Registration	
10:00 am - Skipper's Meeting	Sunday August 24
11:00 am - First race	9:30 am - Skipper's Meeting
6:00 pm - Dinner at the beach	10:30 am - First race

REGATTA FEE \$TBD (\$5 discount for CRAM/US Sailing members)

INFORMATION: Stan Hall (586) 781-6774), E-mail: inter20258@aol.com

More information **on the CRAM website:** <http://www.websitemagic.com/cram/>

NOTICE OF RACE

2003 LAKE HOPATCONG SPRING REGATTA

Hosted by the Lake Hopatcong Boys
Lake Hopatcong, NJ

SATURDAY, MAY 31st - SUNDAY JUNE 1st

Schedule of Races

Saturday, May 31st:

10 AM Skippers Meeting

11 AM Start - Minimum 3 Races

Sunday, June 1st:

10 AM Start - 2 to 3 Races

Directions to launching site:

-From Rt. 80 West. Exit at 34B-Rt. 15 North, Jefferson/Sparta

-At 3rd light, (2 miles), exit right and make a jughandle over Rt. 15 going straight on Berkshire Valley Road (1.2 miles)

-Make right turn onto Minnisink Road and go 1.5 miles

-Make right turn at stop sign (Texaco Station) and Sunset Sailboats will be on your left. This will be the launching site.

Directions to Peter Block's house:

-Continue on same road (Espanong Road) past Sunset Sailboats .2 miles, making a hard left onto Nolan's Point Road (follow signs to the Windlass Restaurant).

- make left and go .3 miles (Do not turn onto Castle Rock Rd. - you will get lost)

- At intersection, hairpin turn - Make right onto Nolan's Point PARK Road, past the Windlass Restaurant.

-House is on the left—81 Nolan's Point Park Road

Contact:

Peter Block: 973-663-3051; Cell: 973-222-1523; E-mail 2block@optonline.net

Danny Goritski: 973-663-4284; Cell 973-945-6441

Fee, Lodging, and Saturday evening festivities will be forthcoming

Notice of Race

2003 A-CLASS Gulf Coast CHAMPIONSHIP

Hosted By
Houston Yacht Club
La Porte, TX

May 17 & 18, 2003

Location Houston Yacht Club, 3620 Miramar Drive, La Porte, TX 77571

Directions to Houston Yacht Club can be found on the Houston Yacht Club web site: <http://houstonyachtclub.com>
click on General information for our guests link
click on Directions to HYC

Tentative Regatta Schedule

Friday (Optional) – May 16, 6:00 P.M.

Each Friday the Houston Yacht Club Vanguard 15 fleet and the A-Class fleet run a series of short, once around races until the sun goes down. Afterwards the sailors and members of the club grill burgers and socialize until..... We will also be taking registrations during this social.

Saturday – May 17th

8:00 AM – 10:00 AM – Registration

11:00 AM – Welcome Ceremony and Skipper’s Meeting

12:30 PM – 1st. Warning Gun with 3-4 races planned with no races starting after 4:00 PM.

6:30 PM – Party at Bob Webbon’s A-Class headquarters. Maps will be provided at registration.

Sunday – May 18th

11:00 AM – 1st. Warning Gun with 2-3 races planned with no races starting after 3:00 PM.

Accommodations

Register early and you will be assured of a comfortable place to stay for free. Call Martin Hamilton 281-334-3196. If you are interested in staying on the grounds, rooms are available at the club between \$60 and \$120.

Event Contact: Martin Hamilton 281-334-3196, E-mail: martinhamilton@mac.com

Registration

Early Entree Fee \$45 by May 15th (must be a member of the USACA)

Entree Fee \$50 after May 15th

.....
Please Print

Skippers Name _____

Sail Number _____

Address _____

Telephone _____

E-mail _____

Make check payable to: HYC

Mail to:

Houston Yacht Club

c/o A-Class Gulf Coast Championships

3620 Miramar Drive

La Porte, TX 77571

Dear Sailors,

You know I'm not from Texas and my largest four legged friend will fit in my car, but I'm still going to climb up on my horse and ask everyone to please pay your dues to the class. Help us by paying this most modest amount to provide measurement materials, trophies and future parties for your enjoyment.

Thank you in advance,
Ben Hall

USACA Membership Form

Please PRINT all information.

Last Name:	First Name
Address:	
City	State/Province
Zip	Country
Home Phone:	Office Phone:
Fax:	E-mail
Sail Number	Year & Make of Boat
Comments:	

Mail your \$25 membership fee: USACA; c/o Ben Hall; 17 Peckham Dr.; Bristol, RI 02809