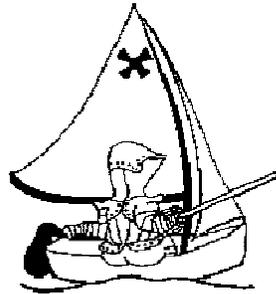


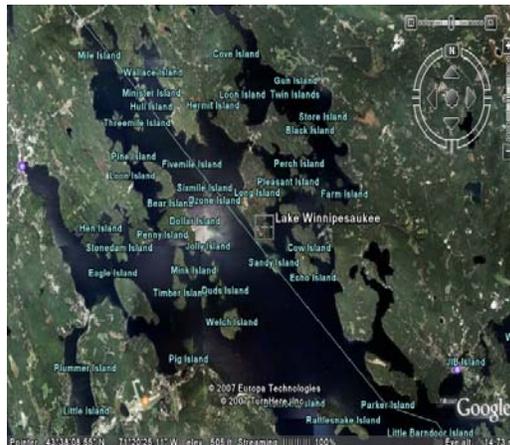
The Jouster



The Jouster is published by the Windmill Class Association four times a year. Annual subscription cost of \$8.00 is included in Class membership dues. Articles, photos and race results are very welcome.

2008 Nationals heading for New Hampshire

The 2008 Windmill Class Nationals will be hosted by the Lake Winnepesaukee Sailing Association (LWSA) on Lake Winnepesaukee, Gilford, New Hampshire during July 13 -17. There will be early registration and check-in on Sunday, July 13, followed by registration and measurements on Monday, July 14. If enough junior sailors show interest, a Junior Nationals will be held on Monday. Following the Junior Nationals, a fun sail is planned for the afternoon to allow competitors to tune up. In addition to the WCA Championship series, the LWSA is inviting the Class to participate in their peak event of the summer, the Commodore's Cup, July 18-20. This would be a great follow-up to the Nationals.



Larry Christian is the local organizer, and he will be calling upon his District 4 membership and LWSA members to assist the regatta chair, Ed Philbot. This is a prime sailing site for the Northeast, with blue water, beautiful scen-

ery, and fresh winds.

For early information regarding this championship, please contact Dave Neilsen, WCA President, at <gowindmill@succeed.net>.

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Regatta Announcement

- Midwinter Regatta, Davis Island YC, Tampa, FL, March 14-16. Contact Ethan Bixby at <ethan.bixby@northsails.com>
- Dutch Treat Regatta, Concord YC. Knoxville, TN, May 17-18. Contact Rusty Field <nfield@prodigy.net>
- Midwestern Championship, Hoover SC, Columbus, OH, June 7-8. Contact Bernie Himmelsbach at <himmelsb@battelle.org>
- Rock Hall YC Invitational Regatta, Rock Hall, MD, June 21-22. Contact Dyer Harris <sdharris@dca.net>
- National Championship, Lake Winnepesaukee SA, Gilford, NH July 13-17. Contact Larry Christian, (603) 463-7601

President's Comments—Dave Neilsen

As you unfold this splendid edition of the Jouster, let me take time to thank you for your continued support of the WCA, our events and the boat. Without you, well, we'd be sitting around a campfire at Bill Blanton's, wondering what to do with these boats. Fortunately, the WCA has been growing stronger each month. We continue to get new members, folks are ordering plans, we have a world class newsletter, a web page that will be accessible by print time and many other suc-

cesses to report upon. Not bad for a group of men and women with no paid positions and geographical challenges that make us honest workers when it comes to attending regattas.

The most exciting bits of information that I have are the following: The 2008 WCA National Championship will be held on Lake Winnepesaukee, to be hosted by the Lake Winnepesaukee Yacht Club on July 15-17th. Start your Google searches for lodging, camp-

(Continued on page 3)



**Action Shots from the 2007
Southern Maryland Sailing
Association Invitational
Regatta**

(photos courtesy of
Luminescent Shadows)

SMSA Small Boat Invitational Regatta Results—September 22-23

Sail #	Skipper and Crew	Race 1	Race 2	Race 3	Race 4	Race 5	Points	Place
5150	Dave Neilsen and Sarah Strohl-Roy	1	2	1	1	[2]	5	1st
3886	Lon Ethington and Meg Gimmi	2	1	[3]	2	1	6	2nd
4953	Bill Blanton and Chesa Blanton-Harris	3	3	2	DNF	[DNS]	15	3rd
2793	Erik Arnesen and Lars Arnesen	4	4	4	3	[4]	15	4th
5275	Lisa Hayes and Ethan Hayes	[6]	6	5	4	3	18	5th
4958	Richard Loheed and Wanda	5	5	DNS	DNS	[DNS]	24	6th

General Information about Lake Winnepesaukee

- It is a 63 mile drive around Lake Winnepesaukee.
- There are 365 islands in Lake Winnepesaukee; 274 of which are habitable.
- Becky's Garden is the smallest island on Lake Winnepesaukee having a 10 foot width on a good day.
- Loon is the name of three different islands on Lake Winnepesaukee.
- "Winnepesaukee" is the Native American name for

Lake Winnepesaukee, which was the most common name used by the earliest New Hampshire English settlers. The most popular translation of the name is "Smile of the Great Spirit".

- *The Lady of the Lake* was constructed in Lakeport in 1849 and was the first boat built over 100 feet in length that provided mass transport on the lake.
- The 780 ton *MS Mount Washington*, was assembled in 1939 from the 230-foot hull of the Lake Champlain

Vessel *Chateaugay*. The Mount stops at Wolfeboro, Alton Bay, Weirs Beach, Meredith, and Center Harbor, from ice-out in spring until October 21st.

- The islanders on Lake Winnepesaukee don't have to come to the mainland to pick up their mail. The *MS Mount Washington's* sister ship, the *Sophie C*, delivers mail to all inhabited islands.
- Wolfeboro is the oldest summer resort town in the U.S.

Windmills Return to Davis Island YC for Midwinters

Well folks, it's "that time of year" again - time to get signed up for the Davis Island Yacht Club "Fireballs & Friends Regatta", March 14—16. This event started off over 40 years ago as the "Fireball Midwinters" and has grown into a really good time, one-design, March Multi-Class Madness!

This event will serve as our annual Midwinter Regatta, sailed over Friday to Sunday. They try to start 9 races during the series, weather dependent. The club hosts a continental breakfast each morn-

ing and a dinner on Saturday night. Registration and Skipper's Meeting is from 0830—1030 on Friday.

Please pay special attention to the supplemental information in the "Notice of Regatta" when it becomes posted on the DIYC website.

If anyone needs anything else, please contact me. NOR/Registration will be on the Davis Island YC website, <www.diy.org>.

For more information, contact Ethan Bixby at <ethan.bixby@northsails.com>.



President's Comments continued...

(Continued from page 1)

ing and good restaurants, because this is one of the nicest places in America to spend a week of vacation. The town of Gilford, New Hampshire will be a good place to start, but there are plenty of towns within easy driving distance. Larry Christian will be the WCA point person for this event, and he'll no doubt be welcoming any volunteers that can drag extra boats to the site.

The WCA is very fortunate to have

a member that is currently gearing up to use the existing WCA molds, and start production.... If all goes well. Rick Loheed, of Loheed Technologies, LLC based there in Southern Maryland has retrieved the molds from Arthur Anasov, and now has them in his shop. Needless to say, this is a MAJOR COMPONENT of the WCA's long term strategic plan, having new boats. Everyone who has been thinking of getting a newer boat and giving the 30-40 year old family

friend to your kid or neighbor should be contacting Rick with your order. Though the wooden boats of today are unbelievably fast, and durable, there are many folks out there who prefer the fiberglass sailboat for their climate and storage issues. Let's all keep our fingers crossed that Rick has an abundance of orders, and we have new Windmill sailing on the Chesapeake and beyond before to long.

(Continued on page 5)

2007 Midwestern District Championships — Julie Himmelsbach

What can I say about the Midwestern Districts for this year? We didn't have a great turnout – only 4 boats – but those in attendance came ready to sail. And sail we did – 7 races in all. In past years, the Indianapolis Sailing Club traditionally had a 12:30 start on Saturday, but this year they changed their schedule to a 9:20 harbor start with sailing to take place both morning and afternoon. The weather forecast was a bit tenuous, with a front predicted to move through the area throughout the day. Our first race was a triangular course in 10-12 mph winds out of the SW. Team Himmelsbach managed to gain the lead by the windward mark and held on throughout the race to take a 1st place, followed closely by the 2 boats from Kansas City. As the race committee advised us to stay close for our 2nd start, we realized that we were missing boat #4 – Rick Beale and Jerry Rezac. The race committee informed us that they were being towed in! We didn't see their mishap, but learned later that they lost a shroud at the fitting high on the mast – apparently due to metal fatigue – and subsequently, the mast bent at the thwart. Their racing for the weekend was over.

In the 2nd race, Barry Skikne, with crew Bill Smith, was first to all the marks and finished 1 boat length ahead of Team Himmelsbach, who was only 1 boat length ahead of Team Lewis. The race committee quickly got the 3rd race underway – still a triangular course in 8-10 mph winds – before breaking for lunch.

The sailors gathered on the deck at the clubhouse for hamburgers, hot dogs and sides. As we shared our stories of the morning races, the winds began to build as a front moved through – the storms staying mostly to the south of Indianapolis. When it was time for the 1:30 harbor start, winds had built to 15-20 mph with higher gusts, waves, white caps and 90-degree shifts! We chose to wait as long as possible before leaving the dock, but eventually followed the 2 Kansas City boats out to the race course. We struggled ~ halfway up the wind-

ward leg before deciding the conditions were more than we could handle and headed back to the docks. Before we could get there, a big gust knocked us over and we “christened” our beautiful new sails with a greasy black mud as we took a “core sample” with the mast. We managed to get the boat upright and sail it in, but missed this race and the next as we cleaned out the “top-heavy” mast and washed down the sails. Rick and Jerry were able to be on the water for the afternoon, but this time as part of the race committee as the two of them manned a rescue boat for ISC. They assisted in setting the race course buoys and were a great help in the heavy winds as they towed in a capsized Thistle.

Saturday evening was a “gala event” at the club as the Y-flyer fleet hosted a steak dinner. For those of you who have never been to ISC, it is a idyllic setting – high on a hill overlooking the reservoir. As you sit on the expansive deck, you are somewhat “nested-in” and shaded by large, mature trees. Even though the club does not have a Windmill fleet, they have welcomed us warmly as fellow One Design sailors. This was our 7th visit to ISC for our Districts, and for the 3rd consecutive year, the Windmill visitors have volunteered to do the clean-up for Saturday night. It is the least we can do in appreciation for their warm reception.

Sunday morning, Rick and Jerry again staffed a rescue boat, and this time they remembered to take along the map of the reservoir showing the zones for the marks! The harbor start was right on time at 9:20 am with 5-10 mph winds – seemingly out of the NE. However, they shifted frequently and there were some “lulls” as well. We had to read the posted race course carefully as there were some roundings to port and some to starboard – our 1st experience with a figure 8 course! On the windward leg, Team Himmelsbach couldn't “get with the shifts”, and lagged far behind at the 1st mark. Try as we might, we couldn't catch up with the other 2 boats. Team Lewis lead throughout to take the win.

The final race of the series was

again a figure 8 course. The 3 boats of the Windmill fleet pretty much stayed together at every mark, weaving our way through stragglers from fleets started ahead of us. At the 2nd mark, I managed to drop the whisker pole overboard and we sailed right past it – so had to circle back for it and gave up precious ground. (NOTE: I had dropped it on Day 1 as well, but both the crew and skipper had reached for it simultaneously – tipping the boat and taking on plenty of water! Thus the hesitation for either of us to reach for it the next day.) Things got very interesting at the 3rd mark when our fleet came in for a starboard rounding just as the PRF fleet (all big boats / cruisers) approached from the opposite direction for a port rounding of the same mark on a shortened course. Needless to say, we small boats stayed clear!

After much jockeying for position, Team Lewis managed to cross the finish ahead of Team Skikne, followed by Bernie and Butterfingers Himmelsbach. Unfortunately, the regatta had come to an end, and it was time to pack up the boats for the trip home.

If you have never made it Indianapolis Sailing Club, you are missing out on a gem. Several of us arrive in time for dinner on Friday and traditionally gather at Loon Lake Lodge restaurant. Over the past 7 years, we have become acquainted with many of the club members and they always make it a point to acknowledge us on and off the race course and to welcome us back warmly. For a meager \$10 regatta fee to ISC, we get lunch on both days and the \$10/person dinner on Saturday night is a great mixer. Mark your calendar NOW for next year's event – it is always the weekend before Labor Day.

Results

Place	Crew	Pts
1st	Dan & Jan Lewis	13
2nd	Barry Skikne & Bill Smith	13
3rd	Bernie & Julie Himmelsbach	20
4th	Rick Beale & Jerry Rezac	35

Top Ten Memories from Past Nationals—Craig Tovell

#10 - People stepping over Mike Gaber and I at Oriental when we chose to sleep at the base of the front stairs of Don & Dot Malpas' cottage. The Finns did us in, and I think everyone was afraid to check for a pulse, so the just stepped over us and left for racing.

#9 - Margo and I driving back from Bantam Lake, Connecticut without headlights to have to stay at the oldest bed and breakfast in America -- where dwarves were the caretakers.

#8 - My yuppie crew in Texas wondering what the "fat rat with a shell" was (armadillo) and the "floating rocks" on the surface (snapping turtles sunning themselves). He wouldn't get off the boat until the fleet got wiped out from

the daily noon squall.

#7 - Chris Demler getting de-pantsed in the middle of the street in front of a Bristol cop as the two Heinekens in his pockets exploded!

#6 - Getting disqualified for being over early in the first race at Panama City (like at Rock Hall). Then, having a breakdown, losing the main clew before the start, thus being two minutes late and still winning the race.

#5 - The wild-ass plane in the tornado at Concord that sheered the rudder perfectly flush to the water line.

#4 - Winning my first turnabout race at the Lake Gaston Nationals, where I crewed for Russell Chauvenet. Wearing a patch over my eye from pink eye,

where Dr. Chernoff took care of me!

#3 - The red mud at Kerr Reservoir and winning the Governors Cup crewing for my dad.

#2 - The "Old Farts" versus the "Young Punks" annual volleyball game.

#1 - An Alex Krumdeick moment... After getting a 19th and 20th at Christchurch on the second to last day in light air, I was getting ribbed that evening by the Windmill Juniors and I made an announcement that I was "going to kick their @ss with two bullets tomorrow." Which we did with a broken starboard spreader for both races in 15+ knots. I'd have been the @ss (moreso, had it not happened).

(Continued on page 6)

West River Sailing Club Regatta—Allen Chauvenet

Only four boats made it to West River 2007 over the Labor Day weekend, but they enjoyed wonderful weather and hospitality. Allen Chauvenet and Sarah Strohl-Roy won both races on Sunday after splitting four Saturday races with Lon Ethington and Meg Gimmi. Erik and Lars Arnesen showed great improvement Sunday (after some well-learned lessons), even leading one race for a while and finishing overlapped with Lon and Meg in the final race! Lisa and Ethan Hayes

need to sail more often but also showed some good sailing on Saturday and beat the Arnesens twice. Everyone had a delightful time with a fabulous Saturday evening cruise into the mouth of the Severn River and the heart of Annapolis (thanks to Lon & Meg and their friends) and we again enjoyed the wonderful hospitality of Dick and Shirley Heintz for friendship and a find launching area.

Come join us Labor Day weekend next year!!



Allen Chauvenet rigging "Beauty and the Beast"

President's Comments continued...

(Continued from page 3)

I'll keep it short. Please send us your stories, pictures and questions regarding the Windmill. We'd love to have more stories than we can print. You might have noticed when your membership is up, don't worry, Allen Chauvenet will remind you gently if the expiration date is soon. I hope this holiday season has everyone in health, en-

joying the days with family, and counting our blessings that present themselves each day. I want to say thanks all of our wonderful friends and family who crew for us, and make it all seem so easy....

This is to inform you that there is a new, official Windmill website. Check out Alan Taylor's newest creation:

<http://windmillclass.myfleet.org>



Top Ten Memories from Past Nationals—Craig Tovell continued...

(Continued from page 5)

* *Extra Credit: Realizing the Civil War wasn't over when being educated by Bill Dodge as that the corndog was really "A Yankee Cornstick!" Huh? And, to later realize that he was a nuclear physicist. Made no sense to me...*

***EC2: Walt Bailey yelling unintelligible commands to his team in team racing that made things worse with every word.*

Fontaine used to just win all the races (usually) which in its own way was less impressive...not intended to take anything from him but if you have some system by which you always win then perhaps you are either playing a different game or playing in the wrong ball park. All that makes ME feel that I have accomplished SOMETHING in knowing how to sail because I did manage to defeat all of you OCCASIONALLY in individual races even when each person was at the top of their game. Of course, in 1973, Dennis Fontaine won the 58-boat NC Governor's Cup with 1-1-2 and I was (believe it or not) SECOND with 18-4-1...so while there really was no second, the

last race gave me a great sense of accomplishment!! (incredibly, I would have been 2nd overall without winning the last race but I've probably never worked harder on a race course than the broad reach to the last mark and final beat to the finish).

Dennis was in a class by himself and had aluminum spars and Moormans to our wood boats and wood spar -- didn't stand a shot in hell. But, when Jim Fulton came onto the scene the complexion changed -- second place for three years in a row -- quitting Windmilling after having been team raced by Dennis so Peter could win in Oklahoma in '74. Pretty galling. We didn't see Dennis after '76 at Gaston when his 10-year-old won the Nationals turnabout skippering. It was amazing how far a jug of orange juice, a box of Oreos and a tiller reacharound would go. We just wanted to bury our heads...

The Chauvenets brought a lot to sailing and life and family...

Craig Tovell

Lauri Lipasti's Reply to Ellen Pepler's Interest in Finland Sailing

I really enjoyed your report on the Finnish championship regatta and was intrigued by the fact that many who participate in Windmill events in Finland are members (or aspiring members) of its national sailing team. The competition at Windmill races there must be stiff indeed! Your article prompted several questions in my mind, Lauri, for example:

1) What is the level of female participation in Finnish sailing and particularly Windmill sailing? *I'm not sure about female participation in the sailing scene in general here, but I would estimate perhaps 10-15%, and the Windmill class is probably enjoying similar female participation figure.*

2) What were the air and water temperatures on the days of your championship? *Air temperature on a summer day here is around 75 -80 °F, and water temperature in the lakes typically 70°F. I do not have the data from the regatta days, but that was a typical summer day and the above numbers are in the right ball park. Not very warm, not very cold.*

3) What would a "proper lunch on the shore" consist of in Finland? (ALL sailors, regardless of nationality, are interested in food and drink, I daresay!). *"Proper lunch" in this context means just a warm lunch, served in the club house, instead of having candy bars in the boats. Lasagne, spaghetti Bolognese, or some soup, and bread, salad is the usual menu.*

4) Do many Finns have the same command of English that you have? Is English taught in schools there? *English is*

usually spoken reasonably well here, especially by the younger generation. This is partly because our own language, Finnish, is so difficult and also so different from any other language, that we need to learn other languages to be able to communicate with others than natives at all. Knowing English, German, French, Italian, Spanish, Swedish or Russian, or any other slavic languages, for that matter, does not get you anywhere in Finnish, unfortunately. The only close relative language is Estonian, just south of the Baltic Sea (and linguistics say also Hungarian, maybe, but it is hard to believe). Kids learn English in the elementary school from the age of 8 years onwards. And we have a lot of exposure to English language in TV programs and movies, much of the popular culture operates in English.

I am sure you've noticed that most of my questions are more cultural than they are nautical, but I think other readers of the Jouster would be as interested as I to know the answers. In fact, it might be fun to consider a sort of cultural exchange between our class associations. *Yes, I agree, exchange of sailing ambassadors would be beneficial for both the United States WCA and Finnish WCA, as well. U.S. participation is most welcome to add flavour to our Nationals. The difficulty is in the other direction, to convince our more competent sailors to make the "Windmill tour", as summer is so short here and packed with other sailing activity. But let us see... Lauri*

Observations on Boat Safety by Tom Lathrop

As you know, Liz and I were there with our powerboat to set and move marks plus serve as safety boat. The last is what I want to bring to the attention of the Windmill Class. Way back in class history when the fiberglass boat was introduced, one of its great values was the air tanks that many skippers found allowed them to pop back up after a capsize and continue in a race, often with little time lost. I have even seen some turn over intentionally to fix some problem at the masthead. A well-executed recovery left little water in the boat and that could be quickly be slurped out by the bailer. Windmills without air tanks found that they most often needed to cast out the anchor to hold the boat into the wind while the crew bailed from outside the boat until the water was low enough to allow at least one crewmember to get back in to continue bailing. Eventually, the water was low enough to allow both crew in the boat so the Elvstrom bailer could remove the rest of the water. Some wooden 'mills were retrofitted with tanks and some were designed with integral tanks in the initial construction. This was all to the credit of the Windmill Class since some sailing clubs were getting antsy about running races for boats that could not self-rescue.

Fast-forward to an earlier Nationals at Edenton where the class voted to remove the requirement to carry an anchor since unsinkable boats did not need them. The safety issue was deemed not a problem any longer.

Fast forward to the first day of racing at Edenton this year. In the blustery conditions of the last race of the day several boats capsized. Three of these had faulty air tanks that caused them to take in water. Of these, two could be very slowly towed back to shore although they were almost completely submerged. This was a painfully slow process and, if the distance were greater, might not have been possible and these boats would have sunk. The third boat did completely sink. The exhausted crew were taken to shore in another boat, leaving the sunken boat to one of the

safety boats to rescue. We towed one of the boats in and went back out to see if we could help the other safety boat with the sunken Windmill. Only the mast was above the water and one of the safety crews stripped to shorts and went into the water to try to secure it in some way so it could be towed to shore. The only thing available was the forestay so they tied a line to that. The line slipped up the forestay to the hounds and quickly broke the stay at the deck fitting. If the line had not snagged on the frayed end of the stay which held it securely, they would have lost contact with the boat.

There were several reasons for the failure of the air tanks on the affected Windmills but the results were the same. All three rescue boats were totally involved in saving the affected boats. If this had happened in the first race of the day, there would have been no more races that day. The sunken boat was finally dragged to the nearest shore where it was emptied and brought back to the marina area.

On many levels, this is completely unacceptable in the Windmill Class. Some effort is required to get the word to class members that air tanks are useless unless they are filled with air and not with water. This should be obvious but clearly it is not taken as seriously as it should be. Periodic inspection of air tanks should be on the maintenance list of any Windmill. Some skippers don't give a second thought to mounting new hardware on the tanks, whether the integrity of the tanks is violated or not. Some old inspection ports or drain outlets can leak badly. Old fittings can loosen and leak. Even new ports are suspect until they are tested. All fiberglass Windmills that I know of have only one continuous air tank. Separate tanks would be far superior. If one fails, the boat could be rolled and righted with the other. Floata-tion tanks do not need to be perfect but they do need to prevent water entry long enough to allow the boat to be righted. This can be a long time if the mast is in the mud as was seen at the Midwinters in Tampa this year.

The fact is, a fiberglass Windmill with faulty tanks is a far greater safety issue than an old wooden boat with no flotation at all, other than the wood itself. If the sailors on the stricken boats had anchors and knew how to use them in a capsize or swamping, none of these boats would have required outside assistance. I think I might have been the only one to vote against getting rid of the anchors.

How to test the air tanks? The time honored way is to pressurize the tank and look for bubbles with a soapy solution. Don't use high pressure, even a vacuum cleaner is too much and could cause distortion or even rupture of the tank. A hair dryer or hot air gun set on cool is adequate. Make a connection hose between the air gun and the tank drain fitting. There is one of those provided, isn't there? There should be only one hole, a tiny one put there intentionally for pressure equalization due to temperature variation. Other leaks should be sealed. Remember, it will generally take at least two vents to allow water to enter in any dangerous quantity. One is needed for the water to enter and one for the air to escape. Air, of course can vent through a much smaller hole than water.

Another issue raises its ugly head here. There is a Coast Guard requirement that small boats like our Windmill, produced for sale to the public, must contain adequate positive flotation to prevent the boat from sinking and also provide some level of additional flotation for the crew. Whether this requirement extends to the Windmill or not, we should insist on it. Anyone can do this by installing some flotation foam, either in the tanks or under thwarts. Such foam must be of the closed cell, waterproof kind, not the typical white stuff found in packing or coolers. This stuff will drink up water, usually not enough to ruin its value as flotation but enough to add considerable weight to the boat. The blue, or sometimes pink foam found at any builder's supply house is good. The blue is what I use for flotation in my

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Observations from Tom Lathrop on Boat Safety, continued...

(Continued from page 7)

boats, when it's needed.

How much foam is needed? We need at least enough to counter the weight of the submerged boat and rigging. A fiberglass structural panel weighs about 90 to 95 lbs per cu ft. so a Windmill at 200 lbs has about 2.2 cu ft of fiberglass material in it. Kick in another 30 lbs for the rigging and we get 230 lbs that needs to be offset. We need that much positive floatation to just give neutral buoyancy for the boat. 2.2 cu ft of fresh water weighs about 137.5 lbs so we need to offset $230 - 137.5 = 92.5$ lbs that is trying to sink the boat. We need the boat to have more than neutral buoyancy plus some additional for crew

safety, so lets add another 50 lbs. That gives a total of $92.5 + 50 = 142.5$ lbs of floatation. 142.5 lbs divided by 62.5 (weight of fresh water per cu ft) equals 2.28 cu ft of foam. Good floatation foam weighs about 3 lbs/ cu ft. but I will let it stand that 2.3 cubic feet of foam are needed in a Windmill for this calculation. This will keep a Windmill from sinking and give enough margin to keep two crew heads above water if they don't have their life jackets on.

I'm pretty sure that the USCG requirement is more stringent than this, but you get the idea. It would take some serious study to decipher the CG regulations that might apply to a boat like the Windmill. I also don't know whether

any of the affected boats in the Edenton regatta had floatation or not but we know at least one did not.

If this sounds like a rant, that is at least partly by intention. This old, over the hill, Windmill hates to see the class fall into a poor reputation for such an avoidable lapse in preparation. The names of the three miscreants are withheld since other suspects are still at large and could share the same fate should a capsized overtake them. This was a tough enough ordeal for the three crews that they will likely insure that it does not happen again. It is for the rest that this shot over the bow is intended.

Tom Lathrop, Old Goat

A New Builder of Windmills and Blades—Rick Loheed

Some of you are aware already—I have been diligently preparing to build both fiberglass and wood Windmills and Windmill parts here in Maryland (by the good graces of former president Bill Blanton, whom I thank). I have been in touch with Arthur Anosov, and I had a sudden opportunity to go pick up the Windmill molds at the Anosov's home in Florida and bring them to Maryland. I have the molds for the class here, stored indoors. They need some restoration due to outdoor storage in Florida.

I have now stocked about 1450 Lbs. of 6mm and 9mm from Harbor Sales and expect to keep stock of Okoume there to cut Windmill parts on my CNC router. That would make about 6 or 7 Windmills! The epoxy and hardener for my first wood Windmill is also purchased, and I have been stocking up on the necessary tools. The codes are all written for the daggerboards and rudders. The CNC router vacuum hold down table is also in full swing, the dust pickup system has been redone for higher performance, and I have completed re-tuning the CNC machine controller for optimum performance and

accuracy.

It is now a matter of defining the fiberglass scantlings and deciding on the building method. Today's EPA and OSHA issues frown on the tried and true open laminate molding, though it can be and is still done. I am hoping to build the Windmills with a vacuum resin infusion process. It can be done readily with the existing mold, and the Divynicell cores are available pre-channeled for this purpose. All reinforcements and cores are lightly spray glued dry in the mold with resin injection and vacuum tubes, peel ply and absorbent polyester breather material strategically placed and then vacuum bagged 'dry', removing all the air that would form bubbles. After the vacuum is established, the resin is mixed and pulled into the mold by the vacuum, wetting along the length of the keel line then pulling the resin outboard toward the sheer through the fiberglass material and around the cores. Once resin reaches the outer edges of the mold, the appropriate feed tubes are shut off. In this way, very little vapor escapes. There are no 'secondary bonds', making a very tough hull in one shot.

"Lets sell some Windmills and get more people racing!"

Rudders: Regarding, the tolerance discussion, I personally think it is fine. Simply adjust the core size for the desired finish. I can accomplish this easily in the 3-D CAD model I have already. Thickness of the layups can be predicted with VlamBlue, a software package I have from VectorPly.

It will take me some more time to do estimates for the rudders, depending on which method is accepted and what is to be built. Some of you have expressed an interest in lightweight rudders. The lightest would of course be a carbon fiber/epoxy over a light core of foam, with wood in strategic spots for pintles and tiller attachments. Less expensive but heavier would either be glass molded rudders in polyester or Vinylester resin. I can build molds and set up a vacuum assisted resin transfer system, but if individual members want

(Continued on page 9)

A New Builder of Windmills and Blades, continued...

(Continued from page 8)

different types of construction I suspect desire for this might be a majority, might not. I have a penchant for good wood construction, sealed in epoxy and finished with a good varnish, simply liking it's beauty. I plan to use Bristol finish, which is supposed to last for years. I also have a large modern CNC router capable of 3D shapes. My preference for construction would be to design the core smaller than the final product by the thickness of the finish or laminate, machine them on the router, and then vacuum bag the outer plies. Finish could be at the discretion of the buyer- I can finish with Awlgrip or equivalent, I just hate to see it wet sanded later; so if some want just a blank so they can finish it and sand it for each regatta.

Daggerboards: My daggerboard has a NACA 63 adaptation, fitting it to the 3" allowable fairing rule and the new tolerancing. I can also build wood ones, build a mold, etc.

Hulls: One reason for buying my router was to prepare a kit to build the composite Okoume/Epoxy Windmill. Currently, I am extremely busy building a 55' research craft of the same materials, and already built a 37' version of the same thing. One of the previous sections can be seen at the Company Information portion of my website. I hope to be starting construction of my wood composite Windmill within the month, but at least by mid February. I need to replace my not too competitive 'DuraBilt'. The fixture will be similar in scope to Tom Lathrop's, but cut on the CNC router to be assembled on site, featuring a built in water level system for precision alignment of the frames on any arbitrary floor. It will knock down for shipping with pre-cut Windmill parts.

I do have an interest in building fiberglass boats also- but need to discuss the fiberglass layup schedule with Arthur Anosov. The molds are safe for now, and one boat was started already by Arthur. The gel coat and first glass layer are in, but time and outdoor storage has taken it's toll. It is probably worth finishing, since vacuum bagging the cores will pull it flat against the mold

again. I suspect this has protected the hull mold pretty well. Interest in new boats must be generated to rejuvenate the molds and keep them functional.

Research: I have done a lot of homework on the Windmill, for the hull, daggerboard, and rudders, and plan to write it all up for the *Jouster*. For now, I have set up a preliminary website at <http://mysite.verizon.net/vzew00ta/loheed/index.html> It does not have the results of my hull studies, but will.

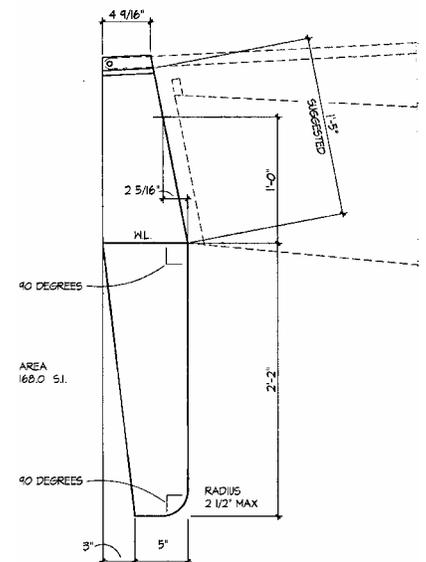
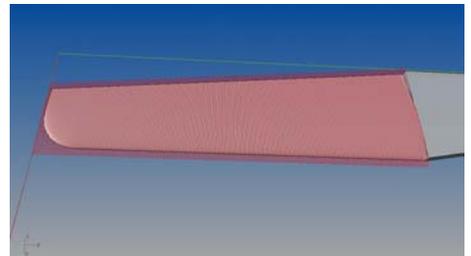
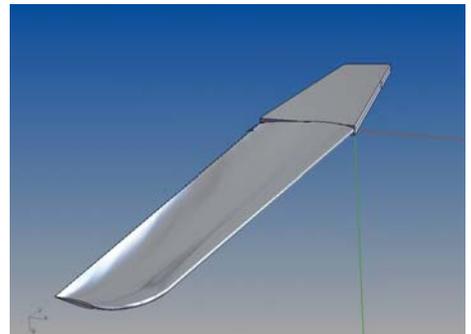
In support of Windmills and my endeavor here I have ideas of marketing other than through the class, pending class approval of course. I don't expect building the Windmill to make me a lot of money, but it must of course support the effort in the end to remain viable for me to do it. It is my contention that to grow the class you must do a lot of PR and advertising, sell boats, establish a great small boat training program using Windmills of course- then recruit racers. I also hope to create wood hulls in various forms- from a simple 'kit' of pre-cut Okoume parts through affordable unfinished but already glued up hulls through to final finished boats. This would help keep the historic perspective and pride of building the Windmill that is so cherished alive and well and give more people unsure of their wood boatbuilding skills the chance to give it a shot- to whatever extent they wish. It is a perfect thing to advertise in 'Popular Mechanics', for example.

I also would like to entertain offering the fiberglass boats in a variety of finishes to appeal to the young, modern and dynamic demographic, see the attached 'Chromaveil' advert image. This would help us compete with the other high tech offerings out there- after all, the Windmill is quite fast and the new daggerboard and rudder rules should make it faster if they are accepted. I like the idea of building a Windmill with the blue always wet looking deck print perhaps. A deck that looks like real wood might be popular too, in keeping with the tradition of wood Windmills.

Since Clark Mill's Optimist Pram is such a 'staple' still today, it seems like the Windmill still could fulfill it's

originally intended role as the preferred high level training boat again. It is so much faster than an FJ (D-PN, 98!), it's a wonder it did not become the collegiate class, though I guess the need for a slightly beefier hull to take the abuse college students would give it went into that decision.

I have also modeled the rudder in 3D in 'Rhinoceros' from the drawing that was in the *Jouster*, using a NACA 0012 section shape- see attached images.



V-7 Rudder Observations—Rick Fontana

I am most interested in a light-weight rudder with aluminum tiller. Even though the new rudder is easier to make than the old rudder, I don't want to make another rudder. Although it is interesting and can be fun to make, it takes a good bit of time, which is something many of us have in very limited supply! A friend of mine with a lot of model aircraft experience thinks a model airplane wing company could make these rudders of wood, foam, and glass reinforced plastic very inexpensively. I would also be interested in knowing what airfoil section was being used for the foil order. I have built a new rudder of wood and the experience has been educational – I think we need to change the tolerances immediately.

Having built a rudder, I think the tolerances need to be changed to plus or minus and be at least plus one eighth inch over nominal size. If the rudder is laid out to the design dimensions and carefully made, then it will come out

bigger than the allowed size because of the thickness of the surface finishing materials. To reliably make a rudder measure, the nice round numbers can not be used for layout. I think that defeats the purpose of having nice round numbers. If we don't change the tolerance, then we should probably point this out in the rules, but I would change the rules. Theoretically, any added size could only make the boat slower by adding wetted surface. Anyway, the differences will be negligible.

If there is an error, it is actually easier to make a rudder that does not measure a bit bigger than to make it smaller. You have to sand all the finish off and a good bit of wood to get a rudder smaller, but you can make it bigger easily with fairing compound. If it is fiberglass instead of wood, then you really are in for a big job making the rudder smaller! I propose that we immediately change the tolerance to include + 1/8 or more over nominal size. I am not

at all concerned about having an easy (large) tolerance on the rudder size, but I am concerned that having it the tolerance tight and below nominal only will lead to great frustration and wasted time. Some of us remember the "apex Nationals" and most of us had to modify our rudders to meet the letter of the rule – there was certainly no speed difference before or after, but there were a lot of unhappy sailors!



Thoughts on the new V-7 Rudder—Dan Fontaine

In an effort to do justice for the hard work and efforts of so many people in our class regarding the new V-7 rudder, I am sending this note that will more accurately reflect my thoughts and feelings about the new rudder, as I have had some time to reflect on my paradigm shifting experience!

Regarding the use of the new V-7 rudder at Davis Island, I forgot to mention that my crew Cyndy, who had never been in a sailboat, was very late arriving at the venue so we launched immediately upon her arrival without reviewing any boat procedures. These facts, combined with the fact that the breeze was 15-plus mph, demanded that I primarily focus on staying upright while attempting to coach and help Cyndy with her responsibilities. Thus, I was basically in survival mode so I completely forgot that I was

sailing with the new rudder.

I kept noticing that the boat was under control in near capsizing events and that upwind I was able to focus on coaching/helping Cyndy, as I could feel the groove so much better. One time when going upwind, I took my eyes off the sails for some 20 plus seconds as I could sense that the boat was being sailed right, then, thinking that I need to check my telltales, I looked up and the telltales were perfect.

I didn't think about the new rudder until we were approaching the beach—then I thought about the additional 9 inches that the new rudder draws. After jumping in the water before the rudder hit bottom, I thought to myself that this 9 inches is really not that big of a change.

To summarize, although I had forgotten that I was trying the new rudder and instead was just trying to survive, I kept

noticing that the boat is so controllable and that it feels so right. It was like latent learning, when you learn something but you are unaware that you are learning it.

On my way home that night I kept thinking that I do not want to go back to my old rudder, but I could not put my finger on the reason why. Then, suddenly, I realized that the reason the boat was so much more controllable and had such better, more precise feel, is because of the new rudder.

You are right Dave Neilsen, our fabulous new leader, you can count my vote for the new V-7 rudder!!!



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Gregg Mundkowsky's #1886 will be getting an Extreme Makeover!



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Windmill Class Association



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