

# EDINA MODEL YACHT CLUB

## SAIL & SCALE NEWSLETTER

AUGUST 2005

VOLUME 14, NUMBER 8

# 2005 Lighthouse Night



By Dale Johnson

Once again as the summer sailing season begins to wind down it is time for one of the most fun events of the boating season or year.

season or year.

Lighthouse Night is designed as a unique, one night event that combines three of the parks unique assets, the Edina Model Yacht Club, the John Phillip Sousa Band and the beautiful Centennial Lakes Park.

Our part of the show will consist of filling the lake with boats of all types outfitted with running lights, search lights and flood lights. We will have a floating and fully operational scaled model of an actual lighthouse to act as a center piece for our fleet.

It is truly a beautiful sight to see all the boats

with their lights on as the sun goes down and the lake turns dark.

After the sun goes down the band begins their concert which usually is outstanding, they really are one of the best bands around.

For the new members and as a reminder to the older members I would like to point out that historically this is a very popular event that is well attended by the club members and the public alike. You should try to be at the park early (6:00 to 6:30p.m.) because parking well be at a premium. Lakeside space will be reserved for club members wishing to participate. We will be using the frequency clips so make sure you have one before turning your radio on. As always we will be sharing when it comes to frequencies, please do not dominate any one frequency.

I hope to see all of you at this years event.

—Dale



## SCHEDULE OF EVENTS:

- Open Boating every Tuesday and Thursday 5:30 - 9:00 p.m. and every Sunday 4:30 - 9:00 p.m. –
- August 13, 14 .....9:00-4:00 .....BSLOL Concours d'Elegance
- August 14, Tues .....6:00-9:00 pm .....Lighthouse Night
- August 16, Tues .....7:00-9:00 pm .....Membership Meeting
- August 20, 21, Sat .....All day .....2005 FE Spectacular

## COMMODORE'S CORNER



By Paul Olsen

**O**ur August events include the annual Lighthouse Night, August 14, evening, and the

in-water Wooden Boat Show BSLOL Concours d'Elegance in Bayport, MN on the St. Croix.

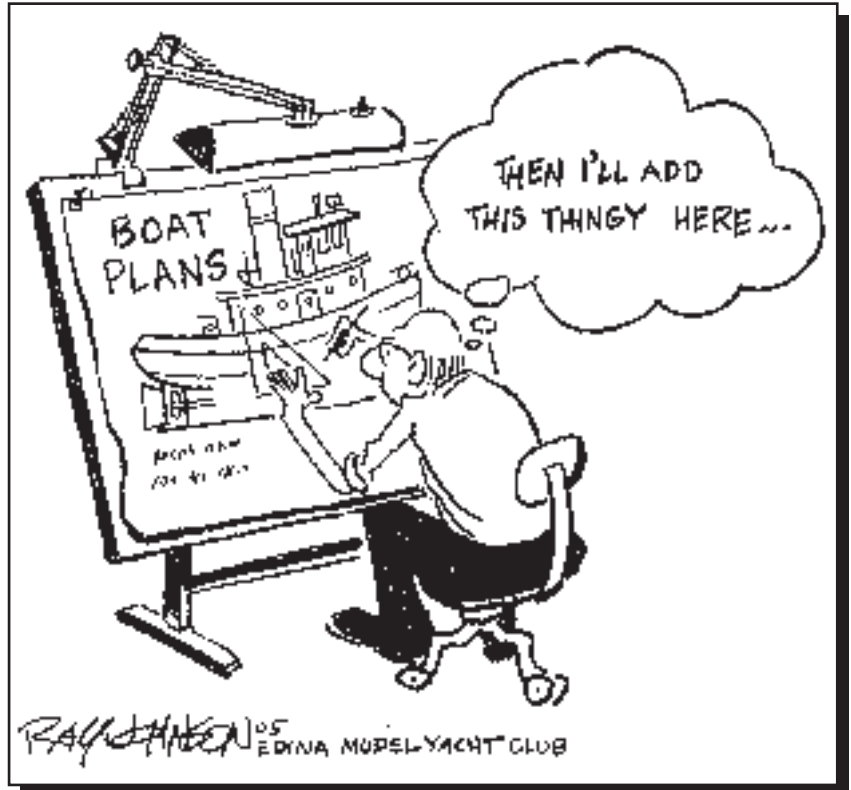
Our members who have participated in the past have always enjoyed showing and demonstrating their RC boats, as well as seeing that group's superbly restored boats, works of great beauty.

If you would like to participate in the Bayport show, August 13th and 14th, one day or both, please call me for details [REDACTED]

At the August meeting we will review the two events that will have just concluded and announce a couple of new events for September. Dan Lewandowski will talk about his smoke unit.

See you there

—Paul Olsen



**EDINA MODEL YACHT CLUB**

Your contact for Yacht Club "Logo Gear" is

Doug Person [REDACTED]

**Just received a New Catalogue!**

I have three fantastic catalogues filled with clothing choices you can select to have embroidered by Team Mates, Egan.

Some clothing examples include: Polo and Chambrarty Denim shirts... Sweatshirts, Jackets, Caps, Vests, or your own shirt or jacket, etc. Embroidery options include our club logo and/or burgee with your name, boat name, number, etc.

Typical costs range from about \$28.00 to \$33.00 (of course, price will depend upon the garment choice and amount of embroidery you choose)

***Fly your colors...EMYC!!***

### 2005 MEMBERSHIP

• 148 members strong.

### EMYC New Members

Vern Edgerton  
Evan McNaughton

– Welcome to the Club –

# AT THE MEMBERSHIP MEETING

JULY 19, 2005



By Jim Smith

Commodore, Paul Olsen called the meeting to order at 7:05 PM

Commodore asked new members and guests to introduce themselves.

Commodore mentioned that the Minneapolis Star Tribune article on Radio Control hobbies would be in the paper on July 20th.

Paul stated that the New Brighton Rotary Club asked if they could reimburse us in some way for the effort expended in planning the (cancelled) Spins Bifida



Commodore Paul Olsen presides at the membership at the July meeting.

boat show. They suggested supplying sandwiches to club members during an evening's open boating. Members suggested that we say "no" in a nice way.

Club has many Lighthouse Night posters for distribution to hobby shops and businesses.

Don Pearson had about a half dozen modeling books from the estate of Warren Freeman. It was decided to put them in the club library.

Doug Person showed two light jackets that were embroidered in error by Team Mates. They donated them to the club. They were raf-



Doug Person.



Short Meeting July 19, 2005 with 44 members in the band room.

fled off and Jeanette Ross and Lee Simonson took 'em home.

Fred Ferris announced that he had just returned from Spreckles Lake in San Francisco where he had participated in the "Wheeler" Nationals and "ODOM" Nationals. Another successful trip in the "Boat Box."

ODOM Nationals will take place in Ohio in September or October 2006. Since "big water" is needed for the Wheeler, those nationals will probably remain somewhere on the west coast.



Dale Johnson gave a fifteen minute presentation on his water skier and mentioned some of the tricks he used to get his guy up and running so consistently well.

Don Sektnan demonstrated the method he uses to form an aluminum cooling coil for his electric powered boats.

**Meeting Adjourned 7:45PM**

BUILDERS CORNER

PART 2 AN EFFICIENT "SMOKE" GENERATOR

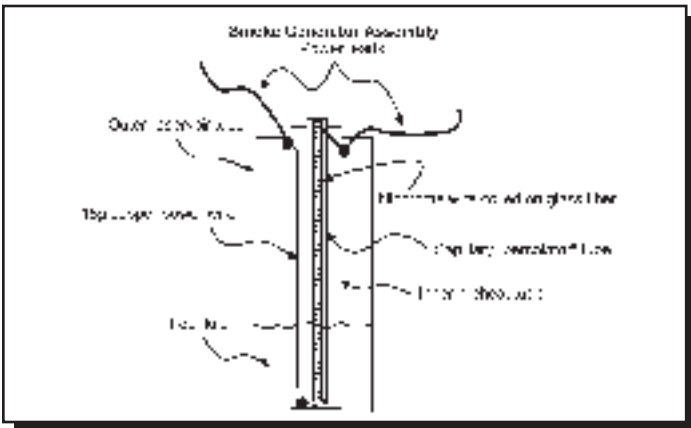


By Dan Lewandowski

**Assembly:** This will be brief – see the pics and diagrams for details...

**Reservoir** – pick desired size.

A small 30x55mm glass tube from AxMan will hold enough fluid at 1/3 full to last an hour or more. Make a stable mounting base for the reservoir in your boat directly under the stack center.

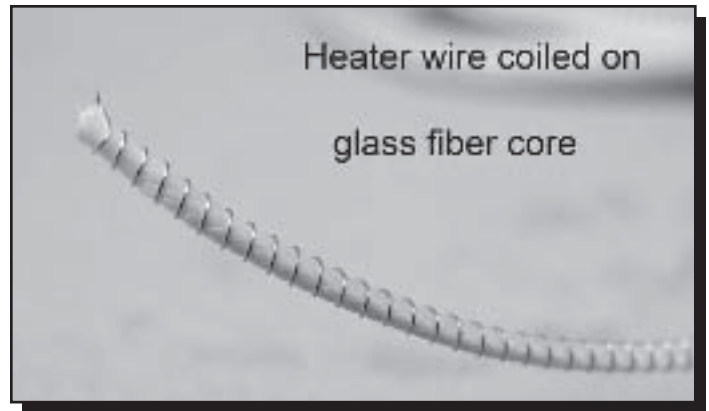


**Preheat tube** – 17x60mm. Drill a 1mm hole in the side of the tube right at the bottom. This is the fluid feed hole. Drill 2 opposing 1mm holes 1/4" from the top edge of the tube. The power leads will attach to the heater wires through these holes. I used a diamond tip bur in a Dremel rotary tool. Lube with water and use only gentle pressure. Wear gloves and eye protection – it's easy to make glass fly....

**Percolator tube.** Cut about 2-1/4" long piece by scoring one side of tube with a file and then snap-

ping the piece off. Wear gloves. You can smooth the cut edge with sandpaper or by heating with a propane torch.

**Heater wire.** Carefully remove outer insulation layer. The coiled heater wire on the glass fiber core is delicate – handle carefully. Cut a 2-1/2" piece of the coiled wire. The resistance of the wire is about 12 ohms per 2 inches. The wire itself – not the glass fiber core – must now be cut to a length based on the



voltage you will be using to power the smoke unit (with about 1/4" extra for connections):

For 6 volt systems wire should be 1-1/4" and for 12 volt systems the wire should be 2-1/4"

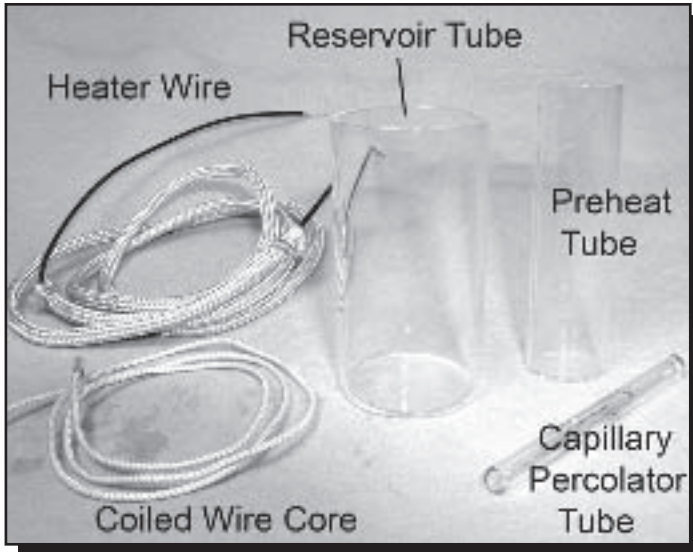
You should now have a 2-1/2" piece of glass fiber core with wire wrapped around it for the length shown above. Redistribute the coiled wire evenly over about 2-1/4" of the fiber core.

Attach a 2" piece of stiff bare copper wire, solid 18 or 20g, to one end of the coiled heater wire by crimping it on. Silver solder will help hold it in place, but lead solder will melt.

Thread the heater wire through the percolator tube – the copper wire just attached will be at the bottom of the perc tube. Pull out about 1/4 " of heater wire at the top of the perc tube for attachment to a power lead in later steps. Use a small piece of thin bare wire to secure the copper power lead to the side of the capillary tube.

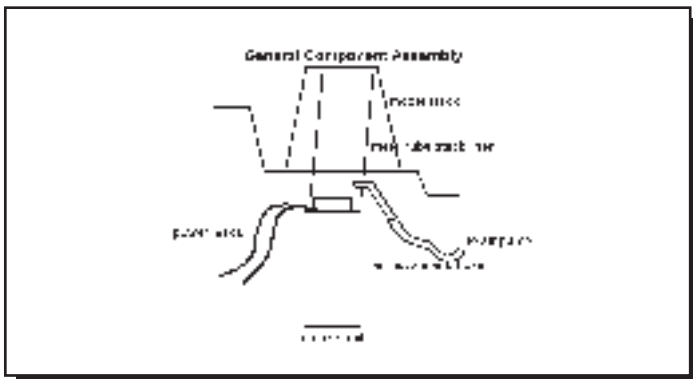
**Assembly.** Insert the percolator tube with the heater wire inside into the preheat tube so that the copper wire attachment is at the bottom of the pre-heat tube.

Carefully thread the copper lead thru one of the



holes at the top of the preheat tube. Thread the other heater wire lead through the opposite hole. Center the capillary percolator tube in the preheat tube, using the wires thru the top two holes to align and stabilize the percolator tube.

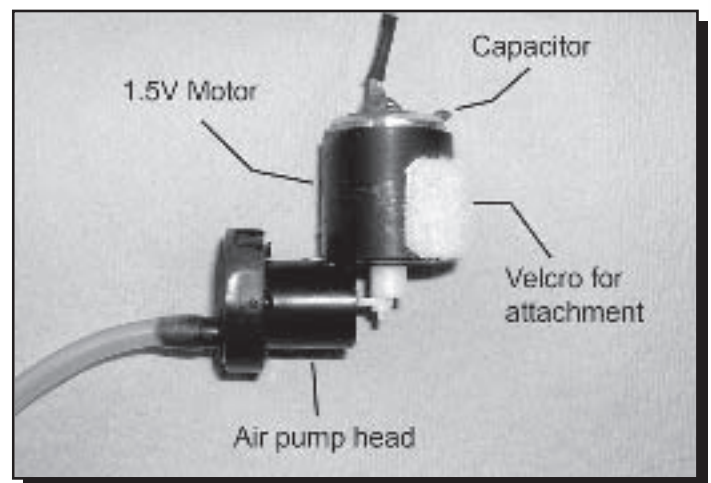
Crimp/solder the silicone insulated power leads onto the heater wires right at the holes at the top of the tube. Use the hi temp RTV gasket compound as a caulk/sealant to insulate and hold the power leads in place on the glass tube. Use masking tape to hold everything in place until the RTV sets up. The heater core is now finished. Drop this assembly into the reservoir and check alignment and position.



For big boats or high smoke volumes, use multiple percolator capillaries as above. Each heating coil should draw only about 1 amp and be wired in parallel.

**Stack liner.** Use a piece of brass or aluminum tubing to make a stack liner that will fit into your boat model. It will run up through the stack on the model to protect the model stack from excessive heat. The stack liner tube can be attached inside the outer model stack or mounted directly on top of the preheat tube.

**Air nozzle.** Air is pumped to the nozzle through a soft aquarium hose by a 1.5V aquarium air pump. The nozzle is a metal tube inserted through a hole on the metal stack liner and soldered in place or glued in with Permatex RTV. The nozzle end that goes into the stack is crimped almost closed and a couple #68 holes are drilled down through the crimp so that a small jet of air will go down into the heater tube and up the stack.



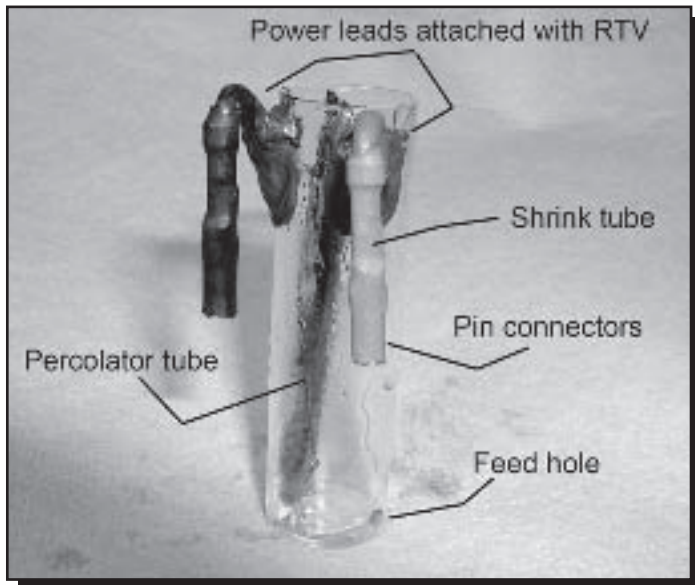
**Air pump.** Remove the pump and motor from the battery housing it comes in. Attach the air pump inside the hull with adhesive back Velcro and supply 1.5V max voltage that is switched along with the heater element power. Connect the pump to the nozzle with the aquarium air tubing.

**Operation:** Assemble the parts as shown in the diagram.

Use an eyedropper to fill the reservoir to 1/3 full with fog fluid. You can add fluid from the top without disassembling the boat.

Apply power (1.5V to the air pump and your selected voltage to the heater element) and watch it smoke!

Cleanup – Use household ammonia or Windex and then rinse parts in hot water.



## Q AND A:

### What is the wire size?

The wire used is about .0055" (5.5mils), or about 34-36 AWG. Resistance measured at 18 ohms/ ft for the straightened wire. As coiled on the fiberglass core, resistance is about 72 ohms/ ft., or about 12 ohms for the approx 2 inch length used for a 12V setup.

### Do I need the air pump?

Yes. Smoke flow is very weak without it.

### Can I make even more smoke?

Yes. With this wire size, just make one or more additional percolator tubes and wire them in parallel. One air pump/nozzle is enough for multiple tubes. You can also use other wire sizes and wind your own coil designed for higher watts, etc. Here are some basic equations to help design with different heater wire sizes: Volts = Amps x Ohms; Watts = Volts x Amps; Amps = Volts/ Ohms. To get more smoke, choose voltage and wire resistance to get higher watts, but keep amps (current flow) thru a single heater wire low enough to heat but not burn the fluid.

### Why is the fog fluid so expensive – can't I use glycol antifreeze?

It's highly purified water and a variety of purified glycols that leave very little residue as they boil off. Also, the \$11 liter lasts forever. I estimate that at

my use rate – 2 to 4 hrs of smoke per week – the liter will last well over a year, probably two. Don't use other solutions – they don't work. Trust me....

### What is RTV?

It's "room temperature vulcanizing" silicone gasket/caulking compound. The Permatex Hi Temp gasket compound is used because it takes the heat of the smoke unit, the glycol doesn't break it down (don't use epoxy – heat and glycol break it down), it remains flexible and can be used as an adhesive or spread on as an insulation layer.

### Does the percolator tube "gunk up"?

Slightly, over time. A rinse with ammonia and hot water keep it pretty clean. My heater wick is now black, but continues to work well. The tube can easily be changed out when necessary. You will have enough material from AxMan to make 10 to 15 perc tubes and heater cores.

### How hot does it get? Will it melt styrene?

No exposed part gets so hot that you will get burned. I estimate maybe 150 - 160 deg F. But styrene will melt if directly exposed. Use a metal tube inner stack liner and allow air flow space between the outer styrene stack and the metal liner. You can coat the outside of the metal stack liner with a thin layer Permatex for added insulation.

### The smoke flow went way down. What's wrong?

If you power the unit off your main batteries (a good idea), the smoke flow drops off as battery voltage decreases with use. Great as a low battery indicator. Fluid is low. Add some from the top of the stack. A connection is loose – either power or heater wire connections. The air pump is off or airflow adjustment/position is wrong. It's windy!

**Summary:** My first attempts were not pretty, and didn't work well, but I eventually got to the point of making these with no trouble. Give it a try. The unit works well, is easy to use and maintain, and puts out more smoke than units I've seen on the internet that use up to 10 amps vs the 1 amp of this unit.

I can help with getting parts or providing additional information. Have fun building the smoker!

—Dan

# ON THE WATER



**By Dale Johnson**

I found Dan Lewandowski working some of the bugs out of his Vac-U-Tug, which needed a little ballast work, listing slightly to the port side.

You might remember Dan from the January meeting where he shared with us his plans for his Billing Calypso. His Calypso seems to be loaded with just about every conceivable accessory you can imagine.

Dan has been interested in electronics for quite a few years, he has worked on trains and other projects that make use his talent in electronics. Like the Calypso Dan has installed quite a few extras in his Vac-U-Tug actually a few more than the Calypso.

One of the items Dan has installed in his ship is a smoke unit that he says he researched on the internet. Dan shares his findings with us in a two part article on its construction in the Builder's Corner.

By day Dan is a Research Director at General Mills, in his spare time he loves to work with electronics and models.



Dan's Vac-U-Tug Rosco during sea trials.



**Our fourth annual Fast Electric invitational race will be held August 20th and 21st on the south pond of Centennial Lakes Park.**

**Club members are needed to help run this event. Please come down Saturday and Sunday and pitch-in for what ever amount of time you can spare.**

## THE 17TH ANNUAL ST. LOUIS RC MODEL BOAT REGATTA

**Union Station, St. Louis, Missouri  
September 17th and 18th**

Sponsored by the St. Louis Admirals R/C Model Boat Club.

*One of the largest RC Model Boat Shows in the Midwest.*

For more information contact:

**Tom O'Dell, Admiral**

# ABC'S of RC BOATS

*For the beginner*



## Fast Boats and Pretty Girls:

By Mike Ross

**F**ast boats and pretty girls, like alcohol and gasoline, do not mix. Earlier this season I took my newly finished 47' Coast Guard Motorized Life Boat down to the park for a spin. In the course of the evening I got into a conversation with fellow club member Jack Gilbertson. I had left my boat to drift while I was talking with Jack. When I heard a crash, and I looked over to see whose boat got run into. Much to my horror there was a zoom-zoom sticking into the side of my boat. My boat's deck was almost perpendicular to the water when the operator of the zoom-zoom was finally able to let off of the throttle. My boat did upright itself (without) sinking, but not before the cabin had fallen off into the water. I was able to use my boat to retrieve the cabin,

but the antenna was gone, and there was a new hole in the side of my cabin.

The operator of the zoom-zoom was very sorry about the collision, and he stated that he had taken his eyes off of his boat for only a moment. That was all that it took. Given the history of this boat, I was just thankful that neither the boat, nor the cabin had sunk. I tried to reassure the gentleman that since I built my boat from an all wood kit, that the repairs would be very easy to do.

The owner of the zoom-zoom, was very lucky that his boat ran into mine, instead of one of the other more expensive boats in the club. He was also very lucky that my boat was the wood kit, and not the fiberglass, and plastic ARTR (Almost Ready To Run) version that Midwest has out on the market.

The repairs were very simple to make. I spent more time waiting for filler, and paint to dry, then I spent on making the actual repairs. Unfortunately I was not able to save the window decal. Some time in the future I will have to take some time, and try to make a new one. Other than the loss of the decal, the repairs came out rather well. If you look real close, you can still see where the old window was, but I did it that way so that I could get the new one in the right place.



Top photo shows the damage, bottom the repair.

I think that we both learned a lesson here. I should have been paying more attention to the other boats, while I was talking with Jack. (I was not even aware that there was a zoom-zoom on the pond.)

I know that there are some members of our club, who are very good at handling their boats, and they make it look easy. This creates a problem. They make it look so easy, that other people who are watching, decide that they can do it too. Additionally there are a lot of people who do not realize how hard it is for some members to keep track of their own boat,

when their attention is on another boat, that is zipping around through traffic.

—Mike



## DOUG CAMPBELL'S HYDRO KIT MAKES INTERNATIONAL NEWS



By Alex Raupp

I was thumbing through the May issue of Marine Modeling International (the UK magazine) when I noticed former EMYC member Doug Campbell's shovel-nosed Hydro kit as a main article. The article wasn't a true review of the kit but the author's

modifications and experiences building and upgrading the kit.

The author did some unique modifications which not only improved performance but gave the model a better scale detailed look. For example, he replaced the internal strengthening structure with carbon fiber to allow for flexible positioning of the battery. For looks, he planked the top deck with a thin veneer of walnut strips for a true wood appearance. He also gave tips on water-tightening methods as well as powering ideas.

He did mention that the kit is well done and a great and unique product. But, of course, we all knew that!

Check out Doug's website at [www.classichydros.com](http://www.classichydros.com).

—Alex



Doug Campbell and his Hydro.

### SPECIAL THANKS

To all the members that contributed to this issue of the Sail & Scale. Without you this publication would be nothing.

Ray Johnson, Dan Lewandowski, Paul Olsen, Doug Person, Alex Raupp, Mike Ross, Jim Smith.

### - NOTICE -

#### MONTHLY MEETINGS

During this time of year it is very difficult to tell exactly where the monthly meetings will be held. We will try to hold them in the Centrum Building but often times the building is not available, in that case the meeting will be switched to the Band Room in the Garage, as in the winter.

— Please check both locations. —

### SAIL & SCALE STAFF

I am still looking for a writer to join the Sail & Scale staff. A person that can write a monthly column and deliver it as an electronic file (preferably over the internet) ready to publish, not meaning formatted, just a plain text file spelling and grammar checked. You must have a respect for deadlines.

If you are interested contact Dale Johnson at: [REDACTED]

## CHECK OUT THE WEBSITE

We have made every effort to update all information on our wonderful website. We have also added many new pictures and articles.

It is now possible to download past issues of the newsletter in PDF form.

If you have any suggestions or corrections concerning the website bring them to the next meeting and we will address them.

[www.emyc.org](http://www.emyc.org)

### CLUB SHIRTS HATS ETC.

Contact:

Douglas Person [REDACTED]

### Cub Burgees and Stickers

Contact:

Tom Weigel [REDACTED]



## **EDINA MODEL YACHT CLUB**

**Centennial Lakes Centrum  
7499 France Avenue South  
Edina, Minnesota 55435  
www.emyc.org**

## **AUGUST MEETING**

**TUESDAY, AUGUST 16, 2005 7:00 P.M.  
CENTENNIAL LAKES GARAGE BAND ROOM**

### **PRESENTATION ON BUILDING AN EFFICIENT SMOKE GENERATOR**

At the August meeting Dan Lewandowski will talk about his smoke generator.

### **Special Interest Contacts:**

#### **Membership:**

Dale Johnson [REDACTED] [REDACTED]

#### **Scale Boating:**

Tim Smalley [REDACTED] [REDACTED]

#### **Sail Boating:**

Tony Johnson [REDACTED] [REDACTED]

#### **Fast Electric:**

Dan Proulx [REDACTED] [REDACTED]

## **2005 Board Members**

**Commodore:** Paul Olsen [REDACTED]

**Vice Commodore:** Tim Smalley [REDACTED]

**Vice Commodore:** Dave Bros [REDACTED]

**Vice Commodore:** Dale Johnson [REDACTED]

**Vice Commodore:** Alex Raupp [REDACTED]

The Edina Model Yacht Club Sail & Scale Newsletter is published monthly except for December.

**Newsletter Editors:** Dale Johnson & Alex Raupp [REDACTED]

Please send articles by email to:  
[REDACTED]

Deadline for articles to be considered for the August publication will be Monday July 25, 2005.