



SAIL & SCALE

NEWSLETTER OF THE EDINA MODEL YACHT CLUB

March 1998

Volume 7, Number 3

March Meeting Change

The next meeting will be held on Tuesday March 24th at 7:00 PM. This is a change from the regular EMYC meeting format of getting together on the third Tuesday of each month. The change was made as a result of St. Patrick's Day falling on March 17th, and the fact that green beer is served only on this day of the year. You are receiving this newsletter early so you can note this change in advance. Club members will meet in the garage located 300 feet north of the Centrum building.

Sailboat Basics

Club member Paul Olsen will be our honorary guest speaker for the March meeting and will be discussing the basics of sailing. Techniques, rules, and other items of interest will be covered. Paul sails both large (1:1 scale) and small sailboats, and I'm sure everyone will enjoy hearing from an experienced sailor that comes from the high seas. Paul's wife Pat believes he went overboard years ago. We will finish out the meeting with show and tell projects, so please bring whatever you have been working on for others to see.

Parade of Model Boats

The Edina Model Yacht Club's highly acclaimed model boat show will take place on Sunday June 14th, 1998. The actual times of the show and the program details are now being discussed and planned. Your individual input relating to this event will be appreciated, and we are now taking a few minutes from each meeting to field suggestions and comments from the membership. If you would like to participate in planning, organizing, or running any part of this event, please let George Pfeifer know

at the March 24th meeting or call him [REDACTED]. Once again we are hoping for another great show with over 100 boats on display.

Centennial Lakes Park Cleanup

Saturday April 25th has been selected by EMYC leadership as the day our club helps the City of Edina clean the Park in which we operate. If you can help for a few hours that would be great and the city appreciates our efforts.

Toy and Model Boat Show

The 7th annual Toy and Model Boat Show will be held on Saturday April 11th from 8:00 AM to 3:30 PM. The show and swap meet will be held at the Hopkins House Hotel, 1501 Highway 7, Hopkins, Minnesota. Admission is \$3.00, and you can call 935-5700 for more information.

CVG Boat Display

CVG Boat Display? For those of you that travel a lot, you will recognize CVG as the three letter aviation identifier for the Greater Cincinnati Airport located south of the Ohio River in Covington, Kentucky (hence CVG). If you pass through Delta's main terminal, look for a fantastic scratch built model of a Mississippi riverboat. It's approximately four feet long and highly detailed with intricate fittings throughout. The model is roughly 1/48th scale, is fully lighted, and was built by a gentleman from Kenner Louisiana. I attempted to find him by phone several months ago to ask him about this project, but I could not locate him. The model is located just behind the information counter in Delta's main terminal. By the looks of it, it appears to be a permanent type of display that should be around for some time.

Schedule Of Upcoming Events

	Every Sunday	Open Boating (30 Days, and Counting)	4:30PM - 9:00PM
	Every Tuesday	Open Boating (30 Days, and Counting)	5:30PM - 9:00PM
	Every Thursday	Open Boating (30 Days, and Counting)	5:30PM - 9:00PM
Mar.	24th.(Tue.)	Membership Meeting	Cent. Lakes Garage 7:00PM - 9:00PM
Apr.	11th.(Sat.)	Toy & Model Boat Show	Hopkins House Hotel 8:00AM - 3:30PM
Apr.	21st.(Tue)	Membership Meeting (Batteries, Care and Feeding)	Cent. Lakes Garage 7:00PM - 9:00PM
May	19th.(Tue.)	Membership Meeting (Parade of Boats Preparations)	Cent. Lakes Centrum 7:00PM - 9:00PM

Parts Boxes

I found some great quality plastic storage boxes at AEI Electronics (also known as ACME Electronics) in Minneapolis at 3rd and Washington. The boxes are manufactured in Houston Texas and are molded out of a clear plastic. The individual bins are molded as part of the entire case, and therefore the parts are completely isolated during storage and will not move under the solid partitions. They have three or four sizes available with different compartment configurations. They are all reasonably priced and would be perfect for storing small model boat parts. AEI's telephone number [REDACTED]

Epoxy

Many of the club members have been using West System Epoxy in their boat building projects. It's a fantastic product that Jim Smith speaks about often. It is easy to use, offers unbelievably strong bonds between various materials, and offers all kinds of options in terms of working with the material. If you would like more information on this product, a complete 29 page guide from Gougeon Brothers Inc. (the manufacturer of West System Epoxy) is usually available where their products are sold. I picked up my guide at the Boat U.S. Marine Center store in Bloomington at 8537 Lyndale Avenue South [REDACTED]

Epoxy Floor Paint

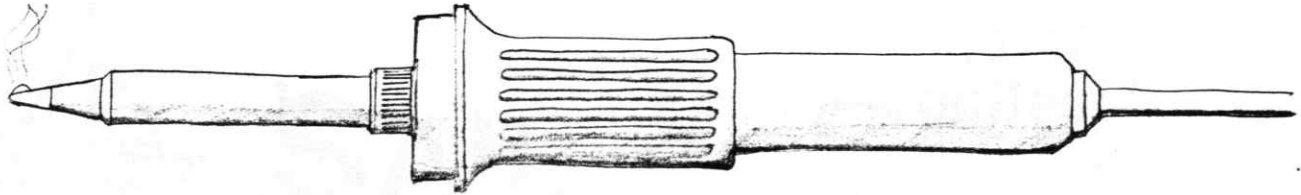
And speaking of epoxy..., if you have ever considered finishing off your workshop or garage floor with a superb durable finish, the latest issue of the Family Handyman will tell you how. It describes the process of a two part epoxy system that will give you the finish that you see in hospitals, car dealerships, and warehouses.

Digital Voltmeter

There is a company from Tulsa OK called I4C. They have developed a very small, very precise liquid crystal display digital voltmeter. It measures and displays voltage from 4-15 Volts DC and is powered by the battery it is measuring. It draws less than 1 milliamp and is accurate to within 1/100 of a volt. It has a microprocessor controlled circuit which gives it this accuracy. The unit displays voltage down to 1/100 volt and the overall size of the meter is 3/4" by 1". Connectors are available for your particular radio and they plug directly into an unused receiver servo slot to measure receiver battery voltage. You can also clip the leads and wire them directly to any other battery. High tech products don't come cheaply and this one is \$39.95. Brad Johnson of I4C will give us a special price if we order three or more. Gary Phillips will order at least one so all we need is two more orders for the special pricing. Rumor has it that Gary's retirement funds are tied up in boat parts. Call me, John Bishop, [REDACTED] if you are interested in this product. I have all of the information.

Newsletter Format Change

Have you noticed a change in the newsletter for this month? If so, you will receive bonus points. Vacationing Jim Smith passed on the responsibilities to me, John Bishop, for this exclusive printing. This little task reminds me of being in college again; thanks for making me blow the dust off my dictionary Jim.



Soldering by John Bishop

Soldering is the process of bonding metals. In our model boat projects we can use this process to connect electrical components to one another or join various metals when fabricating small parts. We use soldering equipment, solder, and a few other items to complete these strong and permanent connections.

•Soldering Equipment

Soldering pencils, soldering guns, soldering work stations, resistance soldering units, and spot soldering equipment are all examples of heat sources used in melting solder. Which one you choose depends on the type of work you want to accomplish. Soldering equipment is rated in terms of watts, and the wattage is what determines the total heating capacity of a unit. Watts is a measure of power and is equal to voltage times amperage. Common outputs are 12, 20, 25, 35, 40, 60, 100, and 250 watts. A small slender 12 watt pencil is good for joining small 16 gauge and smaller wires. It can also be used for connecting narrow brass rods to one another as in fabricating railings for a boat. Small pencils, although limited in their capacity to heat things up, are good for detailed little projects. A 250 watt gun on the other hand is on the other end of the spectrum. Lots of power and heating capacity are available to tackle jobs like connecting 12 gauge and larger wires and securing 1" diameter copper pipe when making a model smoke stack. It is important to note that all of these units produce the same 600°-800° F tip temperatures for melting solder. The wattage determines the amount of material you will be able to heat up. What would I recommend? A good 40 watt pencil or a 40 watt work station will handle 90% of your hobby jobs. Weller* is an excellent brand in the business and their parts are very easy to come by.

•Solder

Solder is a combination of alloys and is made up of tin (Sn) and lead (Pb). Sn60 is the most common type and represents a 60% tin to 40% lead ratio. Solder melts at approximately 400° F. All solder contains a flux within the center core which is present to etch and clean the parts being joined. A good triple rosin core solder (three times the amount of flux to solder) will do an excellent job without requiring any additional flux to be added to the area. Acid core fluxes are rare and should not be used for our projects. Use small thin solder (around .030" diameter) to accurately control the amount of solder to be melted at a joint. Solder that is too large floods the joint quickly. Silver solder is used any time strength is needed. It is made up of roughly 62% tin, 36% lead, and 2% silver. Kester* and Tech Spray* make excellent quality solder.

•Soldering

Plug in your iron and wait until it is hot. Usually one minute is all it takes, and when you touch solder to the tip of the iron and it melts you know it's ready. The next step is to clean the tip. This is usually accomplished by melting some solder on the tip and then dragging the tip across a damp sponge moistened with water. A tip tinner* also works well. The idea here is to always have a perfectly bright, shiny, and clean tip. Follow this cleaning ritual each and every time you use the iron to solder something. If an iron sits for more than a minute, the tip is no longer clean. Next, with a perfectly clean tip, melt a very small amount of solder on the tip and then place the tip at the junction or connection point of the items to be soldered. The small amount of solder on the tip provides a means of bridging the heat transfer from the iron to the joint. This will begin to sufficiently heat the desired area. Next, add solder to the joint and not to the tip of the iron. If all of the components are hot enough, the solder will flow. Apply only as much solder as necessary to provide adequate coverage and a good solid bond. In most circumstances only 4-5 seconds are needed to complete this process. If you like, the residual flux can be cleaned from the area with a can of flux remover*. A properly soldered joint will look clean, shiny, and smooth. Anything other than this result is known as a cold solder joint. Dull, lusterless balls of solder with dark flux residue are an indication of inadequate heat, dirty equipment, or inferior products being used. If you stick with good procedures and quality products you will very rarely experience a cold solder joint. If you need to remove solder from a joint you can use either a wick* or a desoldering bulb*. I'd recommend the bulb since it easily and cleanly draws up molten solder through a Teflon tip. Running a small muffin-type fan will help to ventilate your work area. Wear safety glasses when soldering. These techniques and tips are just an introduction to soldering. Observation, practice, and experimentation will offer the best means to excel in working with soldering equipment. Soldering guides and books are also available for those who would like to pursue more information.

*AEI Electronics, 224 Washington Avenue North, Minneapolis [REDACTED] has all of these items. Tech America, a new mail order division of Tandy (Radio Shack), has excellent prices on Weller equipment and has all other items. Call 1-800-877-0072 for a free 546 page catalog. Local hobby shops and Radio Shack stores carry many solder-related items as well.

March Meeting Notice:

Tuesday, March 24th
7:00 PM

Centennial Lakes
Garage - Band Room
300 feet north of the Centrum Building



Commodore:	George Pfeifer	[REDACTED]
Vice Commodore	John Dodson	[REDACTED]
Vice Commodore	Kim Hershey	[REDACTED]
Vice Commodore	Bob Larson	[REDACTED]
Vice Commodore	Erwin Stevenson	[REDACTED]
Treasurer	Gary Phillips	[REDACTED]

Newsletter Editor Jim Smith [REDACTED]

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First Class

