



# SAIL & SCALE

NEWSLETTER OF THE EDINA MODEL YACHT CLUB

May 2001

Volume 10, Number 5

**Commodore's Corner:** My thanks to those who made the trip to the Poker Rally on April 29<sup>th</sup>. Much too windy for a larger turn out, but quite a few made the trek. From an outside perspective, as I'm an avid FE racer, I go to see the intensity some of you sailors express while sailing. A few looked like kids in a candy store with pockets full of change, I had a great time watching the concentration it took to fight that wind. A few dropped out do to the wind tunnel effect under the 76<sup>th</sup> street bridge. Believe me, the efforts involved were tremendous. Hats off to ya!

Coming up on June 10<sup>th</sup>, we have our annual Parade. Please review the enclosed final details for the show. Contact any of the board members for more information, or use the R/C forum on our website for another resource.

After the Parade this year the board would like to assemble a couple of work shops for Sail and Scale. If you're interested in participating in such an event, either need help or would like to offer some help contact the Board or use the R/C forum on our website.

I look forward to seeing you at the next meeting. Kirk Brust will present his most recent project and we will spend a little more time discussing remaining issues for the Parade. As always, bring your projects for show and tell.

*Andy*

**Where?** Club meetings during the boating season take place in the park Centrum building. If the building is otherwise occupied, a notice will be posted on the Centrum door, directing members 50 yards north to the garage, band room (our usual winter site).

**What?:** Meeting Topic for May. Kirk Brust's latest ship model is a 1937 fishing trawler. He will discuss general scratch building techniques and ideas including:

- Vacuum forming
- Fiber glass mold making
- Working with Styrene
- Painting and Weathering tips
- Rivet application

**Sailboat Skippers:** By the time you read this, the first two regattas of the year will be history and we will be closing in on the date of the Fairwind Regatta. May 20<sup>th</sup> is the scheduled date. We will be running CR-914s and Seawinds opposite the Fairwinds.

So, if you have a CR-914, Seawind or Fairwind mark that date on your calendar. Skippers meeting at 10:00AM at the North pond.

If you don't intend to sail but have a burning desire to participate, come out to the pond and lend a hand. See ya at the pond!

*Fred*

**2001 Poker Run:** That event is now a topic of conversation, some good, some bad and fun for most.

The day started out sunny and breezy but the forecast was for S to SW winds at 20 to 30 MPH with gusts higher. The club dingy was used to place a leeward mark in the north pond and was left in the water for use as a rescue boat for any boats which ended up on the east side rocks as a result of the high winds.

Bill Frank was first to arrive but after a few minutes he returned his boat to the safety of his car because of the wind. As others arrived, they put their boats in a sheltered location next to the Chuck E Cheese's restaurant.

At 2:00PM we had a Skipper's Meeting and the decision was made to "let's do it."

A dozen skippers signed up, 8 Fairwind, 2 CR-914 and 2 Marblehead. By now, the wind was brutal. Dale Johnson withdrew because his main sail luff was pulled from the mast track. Mike Carlson withdrew prior to boat damage. Chris Traiser pulled his Marblehead because of a frequency conflict.

The race finally started with 6 Fairwinds, 2 CR-914s and a single Marblehead. The 914s took off handling the wind quite well. Paul Olsen and his Marblehead, along with John Bishop, Diego Gaston and Phillip Klein, all sailing Fairwinds, made the portage into the south channel but could not penetrate the vicious winds at the entrance to the south pond. All four withdrew at this point and returned to the starting line. Ron Bongard managed to sail into the south pond, round the windward buoy and start his downwind return run. Half way back to the entrance to the south channel, Ron's boat, having taken on sufficient water, sank at the north end of the fast electric oval.

At this point, only 2 914s and 2 Fairwinds were still in the competition. All four of these boats completed the required course, spending much of the time in total knockdown and being blown sideways. Bill Frank came in at 44:40 for his third consecutive win. Bill's time last year was in the low 30s. Tony Johnson, in at 47:51, was hot on Bill's stern. Jerry Bell's killer Fairwind crossed the line at 1:19:50, while Fred Ferris rolled in at 1:34:41.

For awards given, see page 2

*Fred*

**Membership Meeting, 4/17/01:** Commodore, Andy Valentine called meeting to order at 7:10pm. 42 members and guests in attendance. Suzy Miller, from the City of Edina, has contacted the club. Handicap sailing has been set for 6:30pm on July 12<sup>th</sup>. Commodore has totally redone the club's web site. It is much easier to access and more user friendly. Club has received information on a figure-head carving class by Richard Young of Manitowoc, WI. Ed Rogala of Midwest Products will be sending a representative to the Parade. Although functioning with a smaller budget than last year, he plans on donating several door prizes. Jeff McCabe gave a brief presentation on using servo-micro switch links to operate boat accessories. Parade Preview: J.Bishop has asked to be relieved of some of the responsibilities of running the Parade. As a result, the Board will oversee that function this year. Tom Shirley has agreed to allow a display of overflow boats at the Band Shell end of the pond. Frequency coordination between the band shell and Centrum will be established to allow operation from both locations simultaneously. It is hoped that this will help to spread out the viewing crowd as well. Tentative running schedule includes smoking barge (twice), sinking freighter (by Theodore, this year), sail,

tugboat, and fast electric racing and a balloon popping event. Also planned is a mass running of all of the club's Polo tugs. Commodore asked for volunteers for: set-up, area roping, security, frequency board(s), front table, and coffee and donuts. Call him if you'd like to be put on one of those lists. Incidentally, a member must be present to win any of the Parade door prizes. Presentation will take place after the Centrum is cleaned up, tables and chairs put away, etc. Parade flyers were handed out for distribution to all hobby shops. Commodore announced need to get newsletter items to editor two weeks before any monthly meeting to assure that they will be included. Fred Ferris handed out invitation letters to the 'Round the World Poker Run to all Fairwind owners.

**Show-'N-Tell:** Phil Klein showed a selection of clamps that he has found to be indispensable in ship building. Wal Mart and McNards sell a package of six "Hobby Clamps" for about seven bucks. Dale Johnson showed a reproduction kit of an old Sterling product. It's fully pre-cut but contains no hardware. Check with Dale if interested. John Schermeister showed a European tug kit the owner would like to have built, (for a fee). Call John if interested. He also showed several miniature European ship's compasses *Jim*

## Schedule Of Upcoming Events

	Every Sunday	Open Boating	4:30PM - 9:00PM
	Every Tuesday	Open Boating	5:30PM - 9:00PM
	Every Thursday	Open Boating	5:30PM - 9:00PM
<b>May</b>	15 <sup>th</sup> (Tue.)	Membership Meeting	Centennial Lakes Centrum 7:00PM - 9:00PM
	20 <sup>th</sup> (Sun.)	Fairwind, Seawind, 914 Regatta	North Pond 10:00PM - 2:00PM
<b>Jun.</b>	10 <sup>th</sup> (Sun.)	Parade of Boats	Centennial Lakes Centrum 10:00AM - 5:00PM
	19 <sup>th</sup> (Tue.)	Membership Meeting	Centennial Lakes Centrum 7:00PM - 9:00PM
<b>Jul.</b>	12 <sup>th</sup> (Thur.)	Handicap Boating	Central Pond 6:30PM - 7:30PM
	17 <sup>th</sup> (Tue.)	Membership Meeting	Centennial Lakes Centrum 7:00PM - 9:00PM
	28 <sup>th</sup> (Sat.)	Whitefish Antique Boat Show	Crosslake, MN 10:00AM - 5:00PM

### **Poker Run 2001 Awards:**

Fastest Time	Bill Frank
CR-914 1 <sup>st</sup>	Bill Frank
Fairwind 1 <sup>st</sup>	Jerry Bell
2 <sup>nd</sup>	Fred Ferris
EMYC DAL Award	Fred Ferris
Best Poker Hand	Jerry Bell (2 Jacks)

My thanks to Larry Wheeler for being starter / time keeper and to Gary Anderson, John Dodson and Bob Jester for handing out the playing cards.

Thanks too, to everyone who came out in support of this event. *Fred*

**Source:** There is a new web/mail order hobby outfit out of Cheboygan, MI that seems to carry a pretty good line of boat kits in both scale and FE at decent(?) prices. Check out C & T Hobbies, 10181 Townline Road, Cheboygan, MI 49721. (231) 627-3603 [www.cthobbies.com](http://www.cthobbies.com) *Tim Smalley*

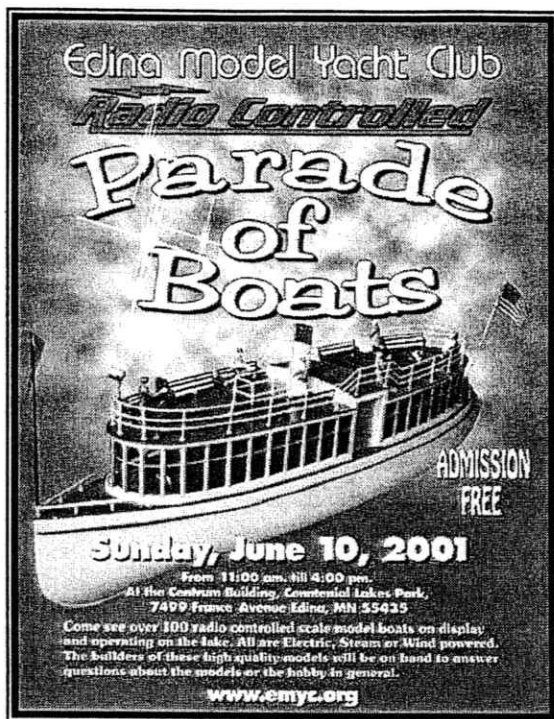
**List:** Inserted in this newsletter is an up-to-date roster of all new and renewed club members for 2001.

There's a world of modeling knowledge, just a phone call away! If you have an e-mail address and would like it included in the next list, give Dale Johnson a call or drop him an e-mail.

If you are on the roster and have not received a membership card with an expiration date of Jan.'02, notify a club officer at the meeting.

**Cyberwhat?:** If you have not had a chance to yet, or have been waiting...check out our website. [www.emyc.org](http://www.emyc.org). A new look and a better forum or message board has been added. This one has a back up system to restore messages should something catastrophic happen again in the future. Forums have been set up for FE, Sail, Scale, Military, Events and General announcements. Let's start populating this forum with topics and information for others to use.

At this time I will repeat my requests for project reports, articles or other information you'd like to see on the site. This project has consumed a large amount of time...and that time being limited...I can't build everything on my own. I'd appreciate your help *Andy*



## Final Details - Parade of Boats 2001

This year's parade has been scheduled for June 10<sup>th</sup>, open to the public at 11:00am and running until 4:00pm. Setup will begin at 8:00am.

The board of directors has taken the reigns and will be handling the organization efforts for the day and welcomes any and all volunteers. It is the volunteers from general membership that truly make this event a success for the club each year, there is no such thing as too much help.

As in the past this show is our major event for the year and provides not only public enjoyment but also a chance for more of our members to gather together for a day and have some fun. This event also provides an outlet for some, who take great pride in their long winter projects. The event as it has for several years will basically run in similar fashion with a few additions: 1) We will be spreading things out a bit by expanding into the band shell on the south side of the pond 2) Some scheduled event changes will occur and 3) Qualifications for door prizes will be adjusted to add more benefit the volunteers who put in that extra effort.

## Setup

Set up crews will be arriving around 8-9am to being setting up tables, chairs and fencing. This year we will be looking for a bit of extra help to set up the band shell. We have a list of volunteers who have signed up and many empty spots on that list. Please contact a board member at your earliest convenience to drop your name in the hat. Donuts and Coffee will be available again thanks to Paul Olsen and Mikio Kiriara for some munching early during setup. John Bishop will be in contact with some local food vendors for some nourishment during the middle of the day. A layout map for tables, chairs and fencing will be made available to the crews making setup as simple as possible although it will still require some labor. The Centrum building will be put together as in the past with the exception of some tables missing from the center aisles. This will provide a more open access to the boats and hopefully eliminate some of the congestion we endure each year. This is made possible by the use of the band shell. Round tables will be utilized as needed in the band shell for boat display.

## Registration

As in years past we will be collecting ships log information sheets for use by the MC during the water demonstrations to describe boats to the public audience. A log book will be made available at the next meeting to check your logs of years past and make adjustments or remove those that will not be run during the event. There will also be display cards placed by each of the boats on static display. Please note with a change in some events to be run, and in the efforts to increase the number of boats in an open boating format jot down a time that you may intend to run your boat on the water. This will give some of our audience an idea of when they may be able to see this "one boat that they really like" on the water. We want to get as many boats as possible out there on the water this year. Ships log and Display cards are included in this newsletter.

## Frequency control

We will use the large frequency board again this year. Of course with the addition of the band shell as a staging area for running boats there will be an added point of control needed from that spot. We will have the large board in it's usual location near the Centrum Building and the smaller clip board in the band shell. Those "Officers in charge of frequencies will have radios made available to them for making sure the two boards are "mirrored" and no frequencies are used by two boats simultaneously. Please, due to this added administration task do not turn your radio on for any reason what so ever with out have the appropriate clip attached to your radio and make sure that channel has been cleared by both officers. We ask that you also include the frequency you wish to run your craft on within your ships log. If something goes awry we can check our list and troubleshoot more effectively.



## Events

We've shaken down some ideas for growing the list of events to promote the idea of "more boats on the water" at any given time. Open boating participants are needed and encouraged. These folks who have boats that can run for a long period of time with out much service needs are requested. We want you to run all day long and only remove boats that may have frequency conflicts for a given event and of course during FE racing demonstrations. We also would like to help aid those with a physical handicap, if you'd like to run all day perhaps but may need some assistance with boat launching from the band shell, battery changes etc. please contact a board member to discuss your situation. We'll provide the means necessary to help you participate; you should be having fun like everyone else.

## Event schedule

11:00	Doors open to public – static display <i>(meet and greet, open boating)</i>
12:00	Smoking barge – fireboats <i>(open boating)</i>
12:30	Sailboat – small regatta <i>(open boating)</i>
1:00	Tug boat race – Tug, Tow, Scale race [award] <i>(open boating)</i>
1:30	FE – circle race with spec boats <i>(open boating)</i>
2:00	Smoking barge – fireboats & smoking PT boat <i>(open boating, Jaws theme plays)</i>
2:30	Sailboat – balloon tag [award] <i>(open boating)</i>
3:00	FE – drag race, eliminations and a final [award] <i>(open boating)</i>
4:00	Award ceremony – Goodnight to the crowd <i>(open boating)</i>

## Builders corner

The builder's table will be a returning show this year. Same location as in the past and organized by some of the same crew. Midwest products has adjusted the way they are handling donations this year, one of their contributions will be to this area. We will have a kit in the box that will need to be opened and some assembly done, to be used as a beginning look into model building. The kit after the end of the show will be given away to a member that participates in the event. What ever work remains becomes their project for the summer.

## Polo Tugs

In the early years there was a movement to generate some interest in building a boat called the polo tug designed by some folks here at EMYC. During the open boating sessions it would be a nice attraction if possible to get a handful of these tugs in the water to play a simple game of polo, or drop a ball in the water and play rugby? Contact a board member if interested in this sport.

## Door prizes

A couple vendors have changed the way they are contributing to clubs this year. This directly affects the value or quantity of prizes we have to give away. In an effort to generate more enthusiasm the door prizes will be handled in similar fashion as years past with one exception. The board of directors will award two of the prizes at the following meeting. It will be the responsibility of the volunteers that day to nominate a fellow member and give a reason why they think they deserve such an award. Provide a simple description of what you observed them doing that day that made them stand out to you from the rest. All these nominations will be taken by the board and voted upon. The following general membership meeting will include a special mention of the two individuals chosen and presented with their award. The final choices will be made based on the number of nominations those individuals received. In the event of a tie the Board will take a vote. This will be used as an appreciation award by the board for your efforts in organizing the event and carries some value, as it is recognition by some of your peers. Nominations can be open and private. They need to be provided on June 10<sup>th</sup>, and you can nominate up to two people.

Contact anyone of the Board Members for further information or use the R/C Forum on our website as another means of obtaining info. <http://www.emyc.org/msboard>

- Andy Valentine

# Edina Model Yacht Club

## 2001 Membership

May 2, 2001

Name	Phone	Address	City	Zip	E-Mail	Boat(s)	Year
Anderson, David			Minneapolis	55410			01
Anderson, Gary			Chanhassan	55317			01
Anderson, Glenn			West St Paul	55118		Q	01
Anderson, Mark			Champlin	55316		S	01
Bach, Bill (Sr.)			St. Cloud	56303		(NAFTS)	01
Bach, Bill			Bloomington	55437			01
Bachrodt, Ronald			St. Paul	55116			01
Bakka, Dick			Apple Valley	55124			01
Baskerville, Marty			Eden Prairie	55344		FA	01
Bell, Jerry			Bloomington	55438		F	01
Binish, Douglas			Plymouth	55447			01
Bishop, John			Edina	55424		FSCT	01
Blais, Harold			Bloomington	55420		F	01
Bongard, Ron			Eagan	55123		FTW	01
Bottemiller, Karl			New Hope	55428		CTO	01
Bros, David			Edina	55424		KOTW	01
Brust, Kirk			Richfield	55423		CW	01
Cammack, Dave			St. Paul	55105		S	01
Carlson, Mike			Elk River	55330		FTS	01
Casserly, Murray			Eagan	55122		O	01
Chryst, Danny (youth)			Eden Prairie	55347		F	01
Chryst, Randy			Eden Prairie	55347		F	01
Cox, John			Anoka	55303		TC	01
Crawford, Rod			Carefree, AZ	85377		AMO	01
Dahlen, Dean			Bloomington	55431			01
Dodson, John			Shorewood	55331		AK	01
Dussol, Pierre			Hopkins	55305		F	01
Edge, Dick			St. Paul	55106		OPSW	01
Erickson, Tom			Edina	55424			01
Ferris, Fred			Burnsville	55337		FO	01
Field, Orrin			Edina	55435		F	01
Finks, Brian (youth)			Bloomington	55437		S	01
Frank, J.W. Bill			Roseville	55113		A.I	01
Freeman, Warren			Plymouth	55447		FC	01
Gaston, Diego			Savage	55378		FT	01
Gilbert, Gregory			Crystal	55429		CP	01
Gilbertson, Jack			Woodbury	55125		TPW	01
Glass, Bob			Burnsville	55337		TO	01
Heebink, Robert			Edina	55435			01
Hershey, Kimberly			St. Louis Park	55426		TK	01

# Edina Model Yacht Club

# 2001 Membership

May 2, 2001

Name	Phone	Address	City	Zip	E-Mail	Boat(s)	Year
Hofius, Walter				Bloomington	55437		F 01
Hopwood, Gregory				St. Paul	55106		K 01
Hull, Bill				Faribault	55021		P 01
Hundt, Nathan				Shakopee	55379		
Iverson, Kenneth				Edina	55439		
Jester, Robert				St. Louis Park	55416		FAO 01
Johnson, Dale				Bloomington	55425		FP 01
Johnson, Larry				Prior Lake	55372		FAOT 01
Johnson, Ray				Orono	55356		OT 01
Johnson, Tony				Excelsior	55331		FAOI 01
Kirihara, Mikio				Bloomington	55420		MOP 01
Klein, Daniel				Maple Grove	55311		
Klein, H. Phillip				Albert Lea	56007		OT 01
Larson, Peter				Minneapolis	55418		O 01
Larson, Robert				Edina	55424		FSW 01
Lundberg, Bob				Duluth	55804		
Mackey, Terry				Minneapolis	55414		
Maldeis, Neil				Edina	55436		P 01
McCabe, Jeff				Bloomington	55431		FMCT 01
Merrill, George				Roseville	55113		TCW 01
Mielke, Robert				Big Lake	55309		F 01
Mikkelsen, Paul				Willmar	56201		Toy Boats 01
Nelson, K. Allan				Minneapolis	55417		W 01
Norton, Max				Apple Valley	55124		FS 01
Olsen, Paul				Bloomington	55420		FMOT 01
Parry, Dick				Edina	55436		PS 01
Patterson, Donald				Plymouth	55447		
Pearson, Donald				Deephaven	55391		Ships-In-Bottle 01
Person, Douglas				Edina	55435		FK 01
Pfeifer, George				Bloomington	55425		FTWP 01
Phillips, Gary				Eagan	55123		FWTS 01
Pierce, Harold				Shorewood	55331		FT 01
Porter, Fred				Bloomington	55437		TS 01
Pratt, David				Excelsior	55331		
Proctor, Harry				Minnetonka	55343		FOS 01
Proulx, Dan				Maple Grove	55311		SCW 01
Rogala, Ed (Midwest Prod.)				Hobart, IN	46342		com 01
Roloff, Reed				Bloomington	55437		P 01
Ross, Jeanette				Edina	55410		FST 01
Ross, Michael				Edina	55410		FST 01

# Edina Model Yacht Club

# 2001 Membership

May 2, 2001

Name	Phone	Address	City	Zip	E-Mail	Boat(s)	Year
Schermeister, John				Brooklyn Center	55430		TCP 01
Sigvertsen, Jene				Woodbury	55125		MO 01
Simenson, Yvonne				Edina	55435		WQ 01
Smalley, Timothy				Apple Valley	55124		PSW 01
Smith, Don				Cologne	55322		FPTW 01
Smith, James				Bloomington	55437		OPC 01
Spletstoeszer, Chad(yth)				Delano	55328		OWTP 01
Spletstoeszer, Terry				Delano	55328		A 01
Steele, Joe				Eden Prairie	55344		SW 01
Stephens, Donald (youth)				Golden Valley	55422		01
Stephens, Richard				Golden Valley	55422		01
Stevenson, Erwin				Chaska	55318		CPWQ 01
Stoffer, Bob				Chanhausen	55317		P 01
Stoltenberg, Ken				Rochester	55906		PWC 01
Studnek, Richard				St. Paul	55104		P 01
Sturmer, Paul (youth)				Mendota Heights	55118		S 01
Swain, Donald				Minneapolis	55411		TC 01
Sword, John				Eden Prairie	55347		P 01
Traiser, Christopher				Woodbury	55125		MO 01
Trudeau, Jack				Eagan	55123		W 01
Valentine, Andy				Woodbury	55125		S 01
VanVoorhis, C.J.				St. Paul	55108		OS 01
Walker, Dick				Edina	55423		FP 01
Wheeler, Larry				Minneapolis	55410		OS 01
Young, Tom				Bloomington	55437		F 01

Sailboat Codes:	F=Fairwind,	K=Kyosho Seawind,	M=Marblehead,	A=CR914	Q=Other Sail	I=Iceboat
Non-Sail. Codes:	C=Commercial / Workboat,	T=Tug,	P=Pleasure,	S=Speedboat,	W=Warship / Military,	Q=Other Non-Sail



**Wire Gage vs. Current Carrying Capacity:** Last summer after listening to a member tell how the wiring in his boat performed perfectly as a fuse instead of its intended purpose, I thought that the potential existed for others to have the same experience. It is hoped that the following information will be of use.

Current is the movement of electrons. Most of the time this movement is not seen but the result is. Flick a switch, electrons move through a circuit; heat up a filament and just that quick, a one hundred-watt bulb is lighting up the room. Electrons are much too small to be seen with the naked eye but when they are together in large quantities they are visible. Get a shock touching a doorknob, that little spark you saw was a bunch of electrons. A bolt of lightning is the same thing but on a much larger scale.

In any circuit it is good to know the rate at which the electrons are flowing through the wires. The Ampere (Amp for short) is the unit of measurement used when referring to the magnitude of this rate and is represented by the following symbol: "I." The electron flow or current flow, through a circuit, can be obtained directly from information that comes with a component that is going into the circuit (such as a motor), or if the circuit is more complicated, the current can be calculated.

Burned wiring is the result of the wiring being too small to handle the amount of current that the circuit is drawing from the battery. This usually happens for one of two reasons: the first being not knowing the relationship between wire gage vs. current carrying capacity. The second, a defective component, which can cause excess current to be drawn from the battery, and if the wiring is marginal it will burn up before the defective component.

Electric current is readily conducted by wire but in a wire there is also an opposition to electric current; that opposition is called resistance. The unit of measurement of resistance is the Ohm and is represented by the following symbol: " $\Omega$ ." The smaller the diameter of a wire the more resistance to current flow. As far as the wiring of a radio controlled model is concerned, if the wiring is of a gage larger than what is required for the current that is passing through it, then for all practical purposes the resistance of the wiring is negligible.

Wire gage refers to the size (diameter) of the wire; the insulation is not included in this measurement. The larger the numbers of the wire gage the smaller the size of the wire. For example, the diameter of thirty-gage wire (.010") is a lot smaller than the diameter of ten-gage (.102") wire.

The resistance of a wire will cause heat to be generated as current flows through it. If the current-carrying capacity of the wire is more than adequate for the amount of current, the heat being generated is not noticed because the wire is large enough to dissipate the heat. When the size of a wire is just adequate for the current, heat dissipation is at the limit for the size of the wire, resulting in the insulation becoming soft and feeling warm to the touch. Needless to say, if the wire gage is substantially inadequate, the heat generated by the current flow will

increase until the temperature of the wire reaches the melting point of copper and one or any combination of the following will be observed: the smell of overheated or burnt insulation, smoke, or even fire.

*Gregory Hopwood*

#### A Guide to Selecting Wire Gage:

Max. Operating Current AMPS	Wire GAGE
150	4
85	6
50	8
30	10
20	12
12	14
7	16
4	18
2.5	20
1.6	22
0.9	24

**A Good Read:** If you are a Nautical History buff, I recommend the 1999 book, "The Essex and The Birth of The American Navy" published by the Adams Media Corporation. Frances Diane Robtti and James Vescovi are the authors.

The Essex saga is a powerful tale of the sea and an important source of many insights on the origins of our nation and the role of sea power in our own and modern world history.

The USS Essex, a thirty two gun Frigate was built in Salem, Mass. in 1799. The people of Salem pledged \$75,000 for its construction. Elias Derby, a merchant, donated \$10,000. Edmund Gale, a shopkeeper, came up with a mere \$10. A total of 101 citizens of Salem financed their new ship of the line.

On September 30, 1799, the launch of the Essex in front of 12,000 spectators proceeded without a hitch. Edmund Gale, a "Plank Owner," was there...and watched the birth of the American Navy. It's a great story! The book, in paper back is 313 pages.

At \$10.95, plus tax, that's only 3 1/2 cents per page. Not too bad!

*G. George Merrill*

**Shimmy and Shake:** The rudder servo on my Polo Tug had a bad case of the chatters after the winter layoff. I removed the four bottom screws, eased off the bottom of the servo and gave it a large shot of Radio Shack "Tuner Control Cleaner & Lubricant", Catalog No. 64-4315 right in the hole where the wires exit. The servo is now functioning normally. While I was at it, I gave the gear set a touch of "Ceramic Grease for Gears, Plastic and Metal Bearings," which I purchased years ago at Hub.

*Jim*

**Catalogs:** Don Spielberger of Loyalhanna Dockyard has a new 256 page catalog (\$12 + \$4 postage & handling) loaded with boating "stuff." Loyalhanna Dockyard, 7527 Gilbert Road, Bergen, NY 14416 Phone: (716) 494-0027

Harbor Models has also updated their 44 page list. Harbor Models, 9153 East Duarte Rd., Unit G, San Gabriel, CA 91775 (626) 292-1617. The catalog is 6 bucks, including postage. [www.harbormodels.com](http://www.harbormodels.com)



**Wire Gage vs. Current Carrying Capacity:** Last summer after listening to a member tell how the wiring in his boat performed perfectly as a fuse instead of its intended purpose, I thought that the potential existed for others to have the same experience. It is hoped that the following information will be of use.

Current is the movement of electrons. Most of the time this movement is not seen but the result is. Flick a switch, electrons move through a circuit; heat up a filament and just that quick, a one hundred-watt bulb is lighting up the room. Electrons are much too small to be seen with the naked eye but when they are together in large quantities they are visible. Get a shock touching a doorknob, that little spark you saw was a bunch of electrons. A bolt of lightning is the same thing but on a much larger scale.

In any circuit it is good to know the rate at which the electrons are flowing through the wires. The Ampere (Amp for short) is the unit of measurement used when referring to the magnitude of this rate and is represented by the following symbol: "I." The electron flow or current flow, through a circuit, can be obtained directly from information that comes with a component that is going into the circuit (such as a motor), or if the circuit is more complicated, the current can be calculated.

Burned wiring is the result of the wiring being too small to handle the amount of current that the circuit is drawing from the battery. This usually happens for one of two reasons: the first being not knowing the relationship between wire gage vs. current carrying capacity. The second, a defective component, which can cause excess current to be drawn from the battery, and if the wiring is marginal it will burn up before the defective component.

Electric current is readily conducted by wire but in a wire there is also an opposition to electric current; that opposition is called resistance. The unit of measurement of resistance is the Ohm and is represented by the following symbol: " $\Omega$ ." The smaller the diameter of a wire the more resistance to current flow. As far as the wiring of a radio controlled model is concerned, if the wiring is of a gage larger than what is required for the current that is passing through it, then for all practical purposes the resistance of the wiring is negligible.

Wire gage refers to the size (diameter) of the wire; the insulation is not included in this measurement. The larger the numbers of the wire gage the smaller the size of the wire. For example, the diameter of thirty-gage wire (.010") is a lot smaller than the diameter of ten-gage (.102") wire.

The resistance of a wire will cause heat to be generated as current flows through it. If the current-carrying capacity of the wire is more than adequate for the amount of current, the heat being generated is not noticed because the wire is large enough to dissipate the heat. When the size of a wire is just adequate for the current, heat dissipation is at the limit for the size of the wire, resulting in the insulation becoming soft and feeling warm to the touch. Needless to say, if the wire gage is substantially inadequate, the heat generated by the current flow will

increase until the temperature of the wire reaches the melting point of copper and one or any combination of the following will be observed: the smell of overheated or burnt insulation, smoke, or even fire.

*Gregory Hopwood*

#### **A Guide to Selecting Wire Gage:**

Max. Operating Current AMPS	Wire GAGE
150	4
85	6
50	8
30	10
20	12
12	14
7	16
4	18
2.5	20
1.6	22
0.9	24

**A Good Read:** If you are a Nautical History buff, I recommend the 1999 book, "The Essex and The Birth of The American Navy" published by the Adams Media Corporation. Frances Diane Robtti and James Vescovi are the authors.

The Essex saga is a powerful tale of the sea and an important source of many insights on the origins of our nation and the role of sea power in our own and modern world history.

The USS Essex, a thirty two gun Frigate was built in Salem, Mass. in 1799. The people of Salem pledged \$75,000 for its construction. Elias Derby, a merchant, donated \$10,000. Edmund Gale, a shopkeeper, came up with a mere \$10. A total of 101 citizens of Salem financed their new ship of the line.

On September 30, 1799, the launch of the Essex in front of 12,000 spectators proceeded without a hitch. Edmund Gale, a "Plank Owner," was there...and watched the birth of the American Navy. It's a great story! The book, in paper back is 313 pages.

At \$10.95, plus tax, that's only 3 1/2 cents per page. Not too bad!

*George Merrill*

**Shimmy and Shake:** The rudder servo on my Polo Tug had a bad case of the chatters after the winter layoff. I removed the four bottom screws, eased off the bottom of the servo and gave it a large shot of Radio Shack "Tuner Control Cleaner & Lubricant", Catalog No. 64-4315 right in the hole where the wires exit. The servo is now functioning normally. While I was at it, I gave the gear set a touch of "Ceramic Grease for Gears, Plastic and Metal Bearings," which I purchased years ago at Hub.

*Jim*

**Catalogs:** Don Spielberger of Loyalhanna Dockyard has a new 256 page catalog (\$12 + \$4 postage & handling) loaded with boating "stuff." Loyalhanna Dockyard, 7527 Gilbert Road, Bergen, NY 14416 Phone: (716) 494-0027

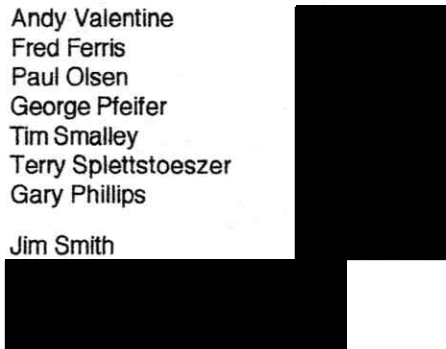
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# May Meeting Notice:

(Third Tuesday of the Month)  
**Tuesday, May 15<sup>th</sup>**  
**7:00 P.M.**

**Centennial Lakes  
Centrum**

Commodore:	Andy Valentine
Vice Commodore	Fred Ferris
Vice Commodore	Paul Olsen
Vice Commodore	George Pfeifer
Vice Commodore	Tim Smalley
Vice Commodore	Terry Spletstoeszer
Treasurer	Gary Phillips
Newsletter Editor	Jim Smith



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

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