



July 2023 Membership Meeting, News and Other Things

My co-worker Bob hears a lot about the EMYC, lately about Vernon Bollesen and the 3D printing presentations at the last meeting. Here is Bob in response to my recent stories: "I have said it many times before, you have the most interesting people in that club"! So let's call this the most interesting people are in the EMYC issue of the newsletter.

Vernon Bollesen

We are going to start with a big loss to the club in the passing of Vernon Bollesen. Vernon was an electrical engineer and his career was with Control Data and Sun Microsystems, and has awards of excellence and patents in his name. But more important to the club is that Vernon excelled at woodworking and model building of airplanes and boats, despite having contracted polio at about age 12 and having impaired use of one arm and hand. That never stood in the way of anything in his life that I could tell having spoken with his son at the funeral service and listening to his son's eulogy speaking about Vernon's life as his father. In addition to the previous hobbies, Vernon was an excellent auto mechanic. His son told me about a VW Micro Bus that they had and of course it was drastically under powered. So out came the VW engine and in went an engine and transmission from a Chevrolet Corvaire, converting it from a manual transmission to an automatic. Then there was the car that Vernon brought home for his son who was just about to get his driver's license. "It needs a little work" says Vernon. Yes it did, in that the engine and transmission were not in the car and assorted other things were needed to make it a driver. They spent a year getting the car ready together.

But we know Vernon as the paddle boat guy. I could not find a picture of his first boat he brought to the club, but it was of the Minnesota Show Boat, docked at the University of Minnesota. Vernon liked modeling real boats and especially boats of local interest. At the meeting he was displaying the finished model and Vernon explained, "I wanted to do the Show Boat, and went to the people that own it and asked if they had plans for the boat that I could borrow". Well they certainly did, and they did in fact loan him the plans for his build! Then keeping with the paddle boat theme, the next boat was the King of the Mississippi. A kit of over 1000 pieces, many of them microscopic, and meant to be a static display. Not to worry, Vernon was determined to

make it not only water worthy but to be fully operational. Here is Vernon and the boat:



The boat did have its trials and tribulations which he humbly shared with the club at several meetings.

The next boat was again a local Minnesota boat. Vernon describes the inspiration:

“There is a barge company and Cargill a few miles west of the 35W bridge and they push two wide and three long barges several times a day. I took the pictures of the containers from East River Rd in the Fridley rail yard and scaled them to fit. This would make it 12 1/2 feet long. This is 10 feet long and that is long enough. Front ones are Coal, Rock and shipping containers.”

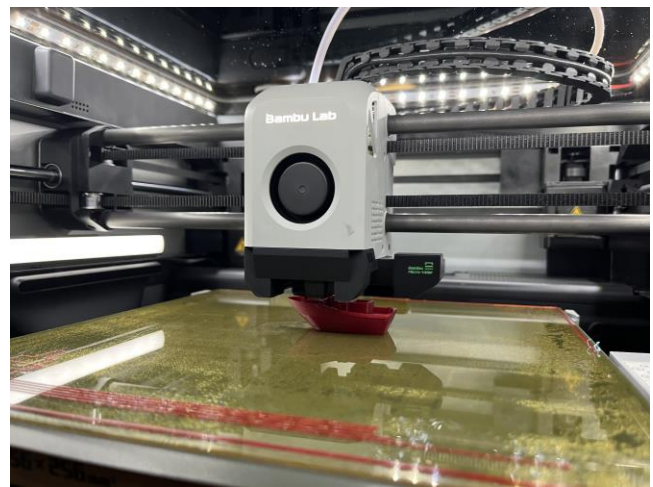


Notice the car in the upper right of the photo. Vernon bought that Corvette new and it never left his ownership.

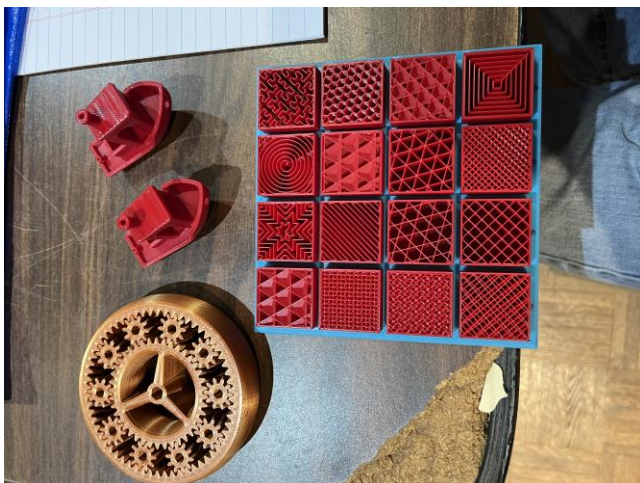
Now you can understand how special Vernon was. His disability was never a topic of complaint, nor did he ever qualify any of his accomplishments due to polio. A remarkable man. We got used to seeing Vernon at the club meetings, and both he and his lovely wife Claire at the ponds. But we have not seen either for some time as Vernon's health was failing. We will greatly miss them being a big part of our club.

At the meeting

The topic was a 3D presentation/demonstration by Tim Kowalik. Tim started the presentations with an overview of home 3D printing systems, that being either a FEM or a Resin printers. Big differences between the two that I cannot begin to summarize, but very briefly FDM can do (in general) larger items up to 10"x10"x10", and Resin can do batch printing better. FDM items come out of the printer ready to use, Resin need some additional treatment to finalize and cure the item. But, there are so many butts, there are many derivations to the uses of each that I will say no more and simply suggest that you get in touch with Tim or Ryan if you are interested in getting started in 3D printing. Here is Tim demonstrating his newest FEM printer:



Below are some of the items printed by the machine. In the left photo, upper left, is the boats printed by the machine, lower left is a set of gears that could not be assembled by hand. The inner ring rotates with the smaller gears between the outer and inner rings. The meshing gear teeth are a herringbone pattern (like an arrow head) so that you could not slip this together from the individual parts.



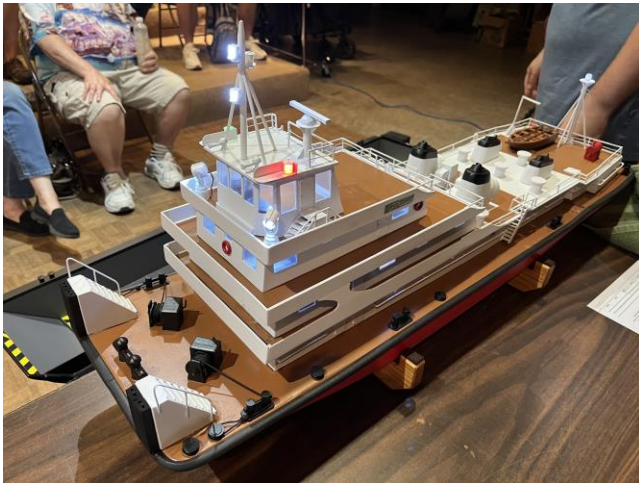
The sixteen small squares on the right are samples of infill patterns you can choose for solid shapes. The photo on the right is a close up of the printed boat and apparently is a very good item to test the quality of a printer because of the open spaces and the bridging at the roof of the cabin. If you look closely you can see a change in the texture of the printing at what would be the waterline. Much smoother below, coarser above.

Also in the photo of Tim above you can see on the screen part of the excellent power point presentation of 3D printers and especially a discussion of the many and various types of materials the printer can utilize including: ABS resin and PLA polylactic acid impregnated with wood or carbon fiber. Tim is a machinist by profession so you can see how he has no problem visualizing, modeling, and creating 3D objects. Obviously his destroyer and battle ship need to be printed in sections and fastened together with pins and holes and other devices to align the parts. The size of the individual sections are limited by the printing capacity of the printer. The two ships at the parade:



No explanation of the 3D printing process detracts from the masterful products created.

Next was the surprise provided by Ryan Butler. Ryan is a very soft spoken person which masks the extraordinary abilities to do just about anything extremely well in the world of modeling and mechanical/electrical machines. Oh, and he also put new siding and a roof on his mother's house - with the help of his mother. Do you see where he gets his abilities from? And furthermore, if you are interested in an electric vehicle talk to Ryan, he has had seven, and his mother drives one too. Back to the meeting. Ryan brought several boats and accessories, many demonstrated 3D printing technology, but first up was a river tug.



At least two mouths dropped open when it was discovered that this is one of the boats from the Larry Johnson collection, originally obtained by Todd Formico, transferred to Kevin Waldo, and on to Ryan. Here is the boat at the Larry Johnson sale:



Boat is left of the green roof



Stored in the attic above the garage

This boat qualifies as one of the biggest make-overs in club history. And to accompany the tug, a barge is needed:



The detail in the tug, with the lighting and the propellers, is carried over to the barge where the loading ramp on the right is lowered by remote control. Both are magnificent models.

And finally the pontoon boat, but oh so much more than is apparent with the initial look at the model.



Everything is computer printed except for the flooring on the deck which overlays the structure below. The pontoons, the structure of the deck....and the motor:



Transom mounted, naturally the motor has variable speed control, and it steers left to right, but it also has tilt/trim. Everything was designed and printed by Ryan. The motor is a thing of beauty in the overall design of the motor, and continues on into the intricacy of packaging the micro components. Ryan is considering producing these for sale to the public.

Remarkable individuals indeed, and just a few of the very interesting people in the EMYC. We are lucky to have the hobby that we do with all the modern equipment (a long way from "Pond Boats"), the venue of Centennial Lakes to enjoy our boats, and that the club and hobby attracts such a group of talented and interesting people.

At the ponds

There has been a lot going on at the ponds. Another dry summer has helped create problems with weeds at the ponds. Low water levels and no flushing action of storm water through the Centennial Lakes chain of ponds system. The park staff works hard

to treat the water to minimize weeds and to scoop floating weeds and debris out of the ponds, but inevitably it creates problems with operation of sail or powered boats. Actually this year, considering everything, it has not been too bad. Weeds are always a problem at some point, and we have experienced much, much worse conditions in the past, so all things considered not too bad a year.

Sailboat racing has been impacted by weeds at both Centennial Lakes south pond and at Smith Park in Bloomington at times. Other operational problems occur and point out the weakness in the design of the ODOM and DF95 boats. Recently Kevin Kavaney ran into a situation when they were running DF95s. Kevin explains:

“Four of us with B sails went to Smith Pond today. Within minutes I could no longer steer my sailboat...After some gymnastics to get it to the Dock I assumed that the rudder servo was fried....I could move the rudder back and forth (by hand)...then it dawned on me that it was the servo ARM that was cracked and slipping on the servo output shaft. Sure enough...the servo itself is just fine. I was able to take a new arm out of the replacement rudder servo I had previously bought. Most brands of servos will include, 2 or even 3 servo arms. The DF95 rudder servo only has one skinny thin arm. It is obvious that this servo is for airplanes so to have the least weight. A more robust servo arm would be so much better for our sailing. I will experiment with and see if any other brand of servo arms will fit, ie tiny Hitec servos.



Went to order a new rudder servo...SOLD OUT...almost everything is sold out... so IF I break another rudder servo arm, I am out of service. Not surprising since we are in the active season of sailing. More reason to see if any other brand of tiny servo arms will fit this particular servo they use. (note, further correspondence in the ODOM and DF95 forums clarified the rudder servo can be a different brand, but the sail servo must be from Joysway.)

Be careful of your rudder boys...especially transporting the boat. I suspect mine was bumped when I had to stop rather quickly on the way to the pond. I think the DF-95 rudder set up is a ton more prone to damage from say bumping in the car compared to the Odom whose rudder hardware is way more robust. So I'd suggest you be real careful handling your boat and consider having a spare rudder servo should you experience what I did today. The rudder servo might be just fine, but IF you need to replace the servo arm they are only available with a New Rudder servo package.”

- Kevin

Meanwhile, back on the Center Pond at Centennial Lakes, we have had some very strong and gusty winds for our Sunday afternoons boating. You had to be very brave to put a sailboat on the water. One Sunday the gusts were flipping boats over. First to go over was Mark Nickells air/swamp boat.



I watched as the wind gracefully lifted one edge up..up..and then completely over. Mark had waterproofed all the connections and the boat actually ran upside down quite nicely. But after several capsizings Mark called it quits.

The next was Tim Peterson. Tim has a really nice fishing trawler with lots of rigging and lines. When he put it in the water I thought he was going to struggle with the boat being blown about by the wind, instead it went over in a flash. My Atlantic tug came to the rescue and with a little bumping and pushing, plus the wind was blowing towards the western shore, the boat was soon back and out of the water, thankfully with the rigging still holding on to the cabin and other features that were separated from the hull.



Note the weeds in the lower portion of the photo on the right. Despite all the floating debris once you were through it into the main and center part of the pond it proved to be almost completely weed free! Update...last Sunday at the center pond the wind was shifting in all direction scattering the weeds all over the pond. Fortunately I had brought Bill Uhl's Swedish Ferry boat and like all of Bills boats it has a monster 3" diameter prop. By steering around larger weed patches I was never impaired in steering or propulsion, but others at the pond had the more traditional small props and got in big trouble quickly. One burned out motor, and several instances of plastic wrap getting caught in the props. Sailboats would have caught debris on the keel or rudder quickly. So be very careful to judge the situation when you come down.

Alexandria Classic Boat Show

Katie Williams organizes this show and does a really good job of it too. This year she had a surprise for the club representatives as she had put together a schedule of events and the EMYC had three “demonstrations” scheduled without forewarning! Not a problem really, it all went off well and as always the club and boats were very well received. Here are some photos of the show:



Coming up:

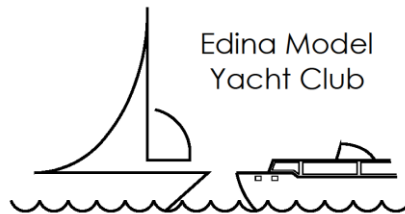
- Sunday, August 13th, Light House Night #1 with the Sousa band in concert with fireworks (I hope) plus other things on the sidewalk including the Model A club. Super popular event so get there around 5-6:00 or parking is difficult to get. Not much set up but help is always appreciated.
- Tuesday, August 15th, Membership Meeting, starts 8:00 PM - last meeting of the late summer starts. The boats on the water before the July meeting was maybe the most boats I have seen on the water since the Parade, so plan on coming down early before the meeting with a boat to put on the water.
- Saturday, August 26th, Gull Lake Classic Boat Show.

- Saturday, September 9th, Light House Night #2 with the Fall Art Festival, plus Lake Minnetonka Classic Boat Show.

I have included the early September events because the summer picks up speed as we near the end. At our house we always say the year is over once you get to the State Fair, so plan ahead and plan on attending one of the summer ending events coming up.

Also, one final event that I have been promoting as a bucket list item and several people have asked me about it is the large scale rc airplane fly-in in Owatonna. This year it is Thursday August 10th to Saturday August 12th. Can't encourage you enough to go see this show at least one time. Here is the website: <http://www.namfflyin.com/>

John Bertelsen
Commodore
Edina Model Yacht Club



Vice Commodores: Gary Tschautscher, Rob Segal, David Brinkman
Treasurer and Membership: David Brinkman
Sailboats: Tony Johnson
Scale Modeling: Kevin Waldo
Website: David Petrich
EMYC and ODOM Forums: Gary Tschautscher
DF 95 forum: Burt Fischer
Dry Dock Party, Spring Breakfast: Terry Bertelsen, Julia Moen
Face Book: Richard Dahlquist, Todd Moen
Off site events: Rob Segal