



October Report



(above) A magnificent line up of scale model early outboard motors dating from 1914. Each one is hand crafted by Denny Cole.

NBMMG October 14th, 2023

Meeting was called to order at 12:00 noon by Jim Gower with 7 members present.

Jim Gower, Jim Brode, Andy Fulcher, Dave Mahoney, William Prentice, Jim Giffin, and Adam Campbell.

We were delighted to have Randy Campbell, (Adam Campbell's dad from Spartanburg, S.C. as a guest as well as Adam's daughter Ev'en attending.

The Guild was also pleased to meet and welcome new member, Denny Cole.

Denny and Dave Mahoney are friends and share building outboard motors from scratch.

William Prentice gave a news brief regarding the Deadliest Catch T. V. series

on the Discovery Channel beginning in 2025, a new fishing vessel, "Seabrooke" will be featured on the show.

A member of the Beaufort Maritime, Chris Barnett's son is a member of the crew, and Chris is beginning to build a model of her son's vessel. Seems as the story goes, Chris was transporting the solid hull of the Seabrooke which fell out of her car and was dragged down the road a bit before being able to safely stop and recover the hull. Glad it was attached to a line or it could have been destroyed on the road.

This will make an interesting article to follow up at a later date.

Adam Campbell is finishing up the rigging on his whaler "Essex" which was featured several months ago during

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show and tell. Adam promised a pic of his nearly completed project, but has yet to furnish a copy.

Jim Gower had several model kits given to the Guild, from a contact in the East Coast Plastic Modelers group. Jim Giffin walked away with a full kit and a partial of the “Scottish Maid” schooner, Adam Campell adopted a full kit and a partial of the Baltimore Clipper “Harvey”, his daughter got a small kit of the “Sovereign of the Seas” Clipper manufactured by Scientific. Dave Mahoney was the lucky recipient of the Charles W. Moran, whaler which is located at the Mystic Seaport Museum. Dave said one of his granddaughters fell in love with the boat and he plans to build it for her. I think Jim Giffin also walked away with the kit “Endeavor” at the last minute and was a winner on the 3 kits he was given along with Adam Campbell.



(above) A sampling of the “FREE KITS” given away at the October meeting. Being a member certainly has it’s benefits.



(above) Denny Cole’s motors displayed left to right: 1914 Waterman, 1914 Waterman, 1916 Koban, 1917 Koban, 1950 Men-U-Troll pump motor (the most interesting model) you hand pump the drive assembly which in turn, turns the prop. 1/8 scale, 1930 Elco Cub at ¼ scale and was on the market for a grand total of \$26.50



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Jim Gower announced our intentions to have a booth at the New Bern Train Show beginning February 24 through the 25th. We have participated for the last 2 years which has always drawn a huge crowd to this event.

Denny Cole, our new member gave a brief introduction of his background in building scale outboard motors and his friendship with Dave Mahoney.

Denny's interest lies with the older motors dating back to the early 1900's. Denny uses Britannia metal, builds his

own molds, and cast each piece by the "spin casting" method, an invention by Jewish jewelers. He noted that the temperatures can range from 450 degrees at 400 rpm to 500 degrees at 250 rpm.

He uses a CADD program to create his molds for casting. It's a far cry from old kit modeling and is what I think will be the future of modeling along with 3d printing.

Our next meeting will be November 11th at the Shop Class Building. ■

-Jim Gower



(above) A mold Denny uses for his spin casting technique.

Dave Mahoney builds 1950 -1970's styled motors while Denny leans to the earlier models. A very interesting contrast on outboard development.



3D PRINTING

A new tool for ship modelers, part two - by Hank Strub

So at this point in this saga, I'm going to describe a bit about the design of 3D parts and how you get to the ability to print your parts. Again, let me stress that there are at least a couple other NC modelers who are into 3D design/printing and could probably weigh in on this topic from a much more professional level, but I'm going to give you my experience from the low end level of the technology.

With my years of experience as a 2D draftsman/designer, etc. I went into this whole "experiment" with my online cohort in Fairbanks, AK and after he had made the equipment purchase, I undertook looking for a 3D design package that was 1. freeware and 2. as easy to learn as I could find. The last requirement was that it was geared towards small mechanical parts design. Using an architectural or cabinetry CAD software program would be totally useless. So, after looking into a few online freeware entries, I found Design Spark, Mechanical and emailed my friend with the particulars.

Let me make a note at this point: Freeware (or shareware) was my goal in selecting a particular software program as well as ease of use/learning. So, there was no consideration of expensive, 3D software that costs \$\$\$.

So, going into this I was biased and skeptical as to what I could find and how easy it was to learn. I guess the main reason I chose DSM was that I actually was able to create a design file without any up front learning/training – something NONE of the other freeware packages I looked at could do. But, or should I say Butt – as I butted my head for the first two weeks trying to design a simple bitt – doing the actual design was a stretch for me to learn.

My friend was already ahead of me on this on several fronts and then just before the bird

landed on the T-day platter in 2020, I had a Eureka moment and things began to fall into place. I had crossed the "Great Divide" and the Bell Curve was on the downhill side – at least from understanding and being able to create various shapes without having to think about it – it started working constantly in a positive direction.

I was used to a top of the line, bells & whistles CAD program, dual monitors, etc. and now at home I had a bottom of the barrel "Briggs & Stratton" 1 cylinder putt putt CAD to try and cut 5 acres of tall grass!!!

However, neither of us was even the least bit interested in moving to the available expensive version of this program as we were determined to learn it come Hell or High Water. So, we both crossed The Styx and are still afloat!!! My friend has designed/printed two complete warships in 1/144 and parts for several other models that he has built. He's now designing HO gauge RR locos for his home layout along with occasional ship model parts.

This 3D software as I mentioned is freeware – you go to the vendor's website, pick the version you want to download, answer a few questions, set up a username/password and that's about it to get the download. The only real requirement (besides the usual computer requirements, etc.) is that you must be online to access the program. If you are not connected to the Internet, you're SOL – just one of the little 'nasties' that software developers use to remind you that THEY control your use – and want you to upgrade (subscribe) to their subscription program. But, that won't change the online requirement factor.

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Now that you've downloaded the program and it is successfully working (as far as you know, right?), pretty much the low end free-ware all start with a design plane and grid – This is somewhat standard for how these programs begin. The design plane you see is where you will create your part using the various tools from the icons at the top of the page. Again, this is the basics that are needed, and generally NOT the more refined and sophisticated tools/commands that the \$\$\$ CAD programs include.

Here I'll simply mention that these programs generally speaking are geared to the Metric system, not the Imperial Std. system (M/mm versus inches/feet). There is a page for making adjustments to the default settings and you can reset this to do ft/inches – DON'T DO IT!!! Printer software (coming from our friends in Chop Suey Land) only reads the metric system. I learned this the hard way and had to redo several of my first parts to metric and from then on I have been using it exclusively (so, there IS a positive educational aspect to this – most things today are engineered in metric, so now is the time to learn how to use it!!).

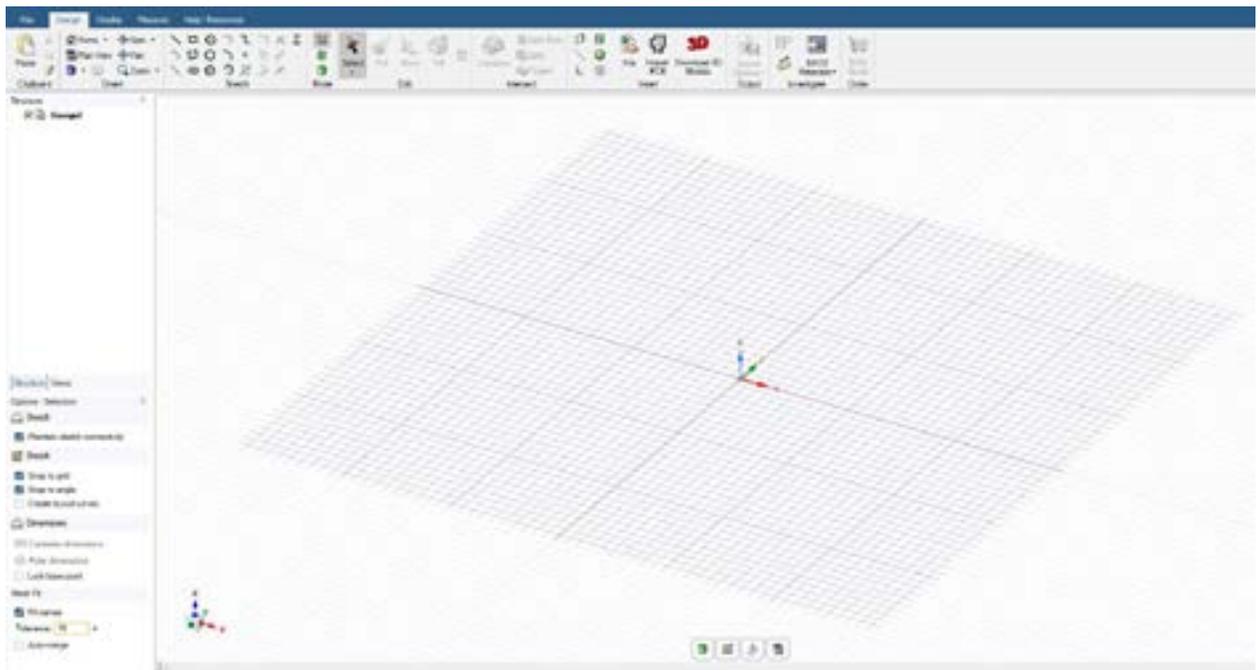
(below) The work space, where one starts to create the file that will eventually become an working part of your model build.

As I am NOT a teacher, I will not attempt to try to spell out how to do any of the various commands because each program varies and no two CAD software packages are alike (similar, yes). I think with some of these vendor websites, there are tutorials to show how things are done – and, probably You Tube videos by DSM users who have egos!!! If you are a Facebook person (I'm not!!!) DSM has their online forum & user group thru FB – and that I guess, is a help for some folks.

3D design of parts is not all that different from the parts you get in any styrene ship model kit. When I began in this, I looked at the parts in my destroyer kit and noticed thicknesses and so forth and after speaking with other 3D designers, had a general idea of what I could or couldn't get away with when considering what structural needs the part required to keep its integrity and shape.

Scale plays a part – smaller scale models don't require hollowing out in order to make the part. The same item in a larger scale would be a total waste of material to make it solid – so, you can scale up/down as needed, but with modifications to account for the size difference. At this point I will end this discussion and show a few pictures of various parts I've designed in both small scale (1/144) and large

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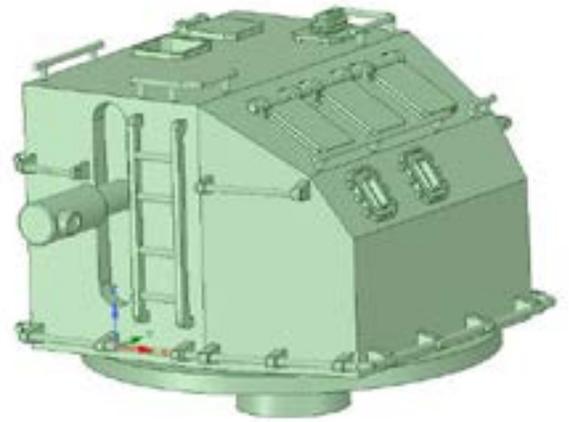
scale (1/96-1/48) so you can see what can be detailed in both large & small sizes.

I was not satisfied with many of the parts in the 1/144 scale kit of USS FLETCHER (DD-445) and so have created my own and will use them in place of the kit parts. So, here are a few of the parts for this model that I've 3D designed/printed:

As you can see, the range finder arms, hand-rails, and other details will be separate parts and added later. At this scale, I've added all the bolt head, and other details that would have been very hard to produce on the smaller version.

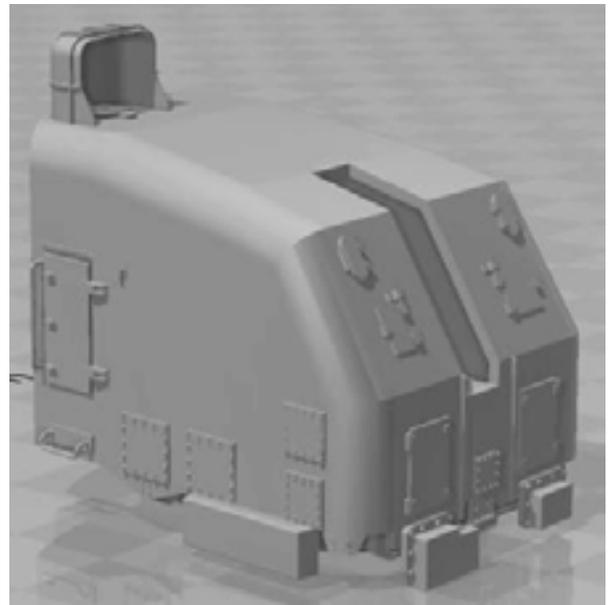
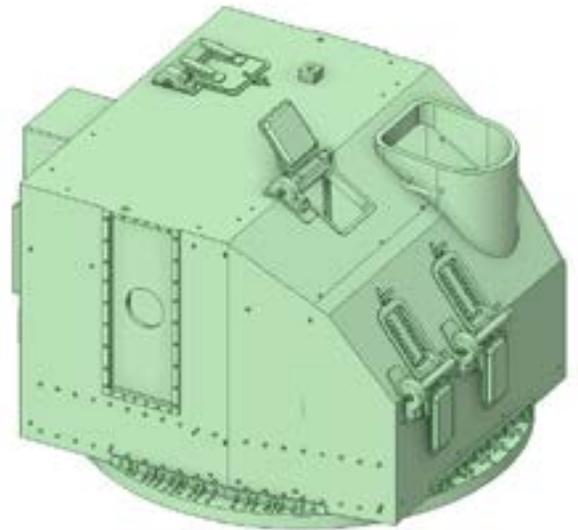
Gun mounts are one of the items that I've been able to design that (IMHO) rival not only the kit parts (which are basically incorrect) and also other professional 3D parts vendors. Below is my version of the 5"-38 single gun mount. There are four of these mounts on STODDARD and all four are different in some aspect, requiring four separate design files in order to print them correctly. Here is a photo of the forward mounts (51, 52) on my model:

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(above) Mk. 37 FC director, 1/144 scale – WWII version as it was in 1967-68 when I served in USS STODDARD (DD-566). At this scale, the director is designed as one piece.

(below) Now, here is the same director, but re-designed in 1/48 scale for a large display I am putting together:





I have even accomplished successful prints of RADAR antennas that even the “Big Boys” are afraid to tackle with their professional setups –

One of the more complex parts I’ve done in 1/200 scale was the aircraft crane, which in the Trumpeter MISSOURI kit is incorrect for the IOWA class BBs in the 1950s or 1960s. I’ve successfully printed this in both 1/200 and 1/48 scale. Here is the 1/200 scale part –

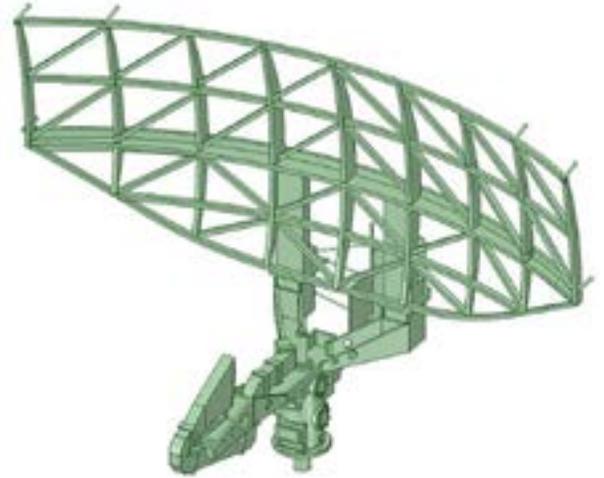
And here is the printed part – in 1/200 scale and 1/96 scale. I’ve since modified this part and the hook, pulley, and cables are all one piece. The larger crane is still attached to the printing supports.

Here is a photo of two scales of the same part for the A/C crane control console – The smaller part on the right is 1/200 scale. Again, the kit parts are incorrect for the 1960’s version of this equipment.

So, with these parts, I didn’t need to change the design file in order to make larger/smaller scale parts – I drew them up at 1/96 scale and then let the printer software (slicing program) scale the part as I needed it.

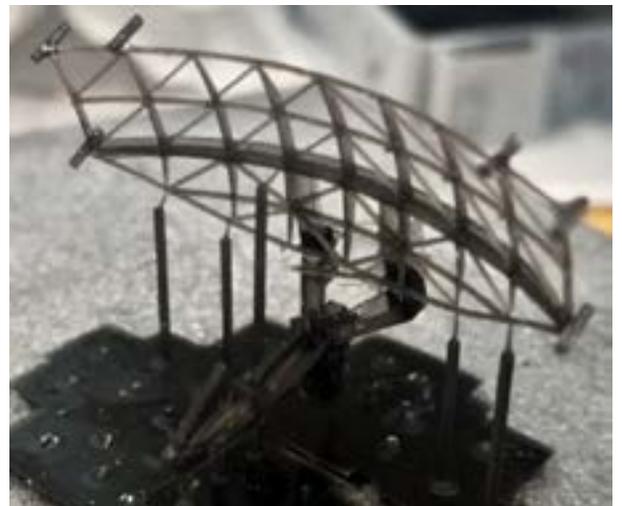
Quite a few modelers I’ve met and talked with over the last couple years seemed very interested in this medium for creating more detailed parts for their models, but one thing I stress to them is that it helps to know 1) geometry and 2) mechanical drafting. At least, those are two things I feel enhance a modeler’s ability to use this new “tool” with success.

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(above) Hank’s radar aerial, first, in the initial design phase, and . . .

(below) Translated into plastic via new technology 3-D printing. This gives detail capabilities only dreamed of via injection molding.





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It is now time to return all of you to your normally scheduled BATtivity, on your same BAT Channel, etc. My third and final part will discuss printers and the results you can expect – again, looking at this from the low end of printers and freeware slicing software. ■

-Hank Strub

Meeting Schedule for Carolina Maritime Model Society 2023 Schedule for the calendar year 2023:

December 2
(combined November/December meeting)
All meetings start at 2:10 pm, in the Museum's Auditorium.
North Carolina Maritime Museum
315 Front Street
Beaufort, NC 28516

Meeting Schedule for the New Bern Maritime Modeler's Guild 2023

November 11,
December 9.
All meetings start at Noon, at the Shop Class building, in New Bern.

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Wed. - Sat. 11am - 9pm
Sunday: 12:00 - 6:00pm

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(two shots below) Here are two photographs showing the recently completed (1/48!) scale 3D design/print of the Mk. 54 Main Battery Fire Control Director as installed on the USS DES MOINE class heavy cruisers.

