Volume 33, Number 1

Newsletter of the Ship Model Society of New Jersey

January 2015

In This Issue

Our next club meeting is **February 24** at **6:45**.

MILLBURN PUBLIC LIBRARY

Please note that the Executive Committee will start the business meeting at 6:45 "so that we can get to the fun stuff more quickly".

January Notes...

Old Man Winter Strikes Again! Score:

Mother Nature **1** SMSNJ **0**

Yes, we had to cancel our January meeting due to weather and a State of Emergency declared by Governor Christie…to say nothing of the fact that our meeting place was locked up tight. But don't get cocky, Mother Nature. It's the year-end total that counts.

Since we're into a new year, it's an appropriate time for new thinking. Here are some ideas for consideration and discussion:

- Assignment within the next couple of weeks of a monthly tech or tool time topic for the rest of the year. This would be put on the calendar and opened up to volunteers. If no one comes forward, the topic would be assigned to the member most qualified to present it (with help from other members if requested).
- "From the Workshop". A monthly article on significant progress made, frustrations experienced and solutions developed on a current project. This would be a joint effort between a member and *The Broadaxe* editor. Input doesn't need to be polished or ready for press. Steve will rewrite as necessary.

Are you aware of something coming up over the next 6-8 months that might be of interest to club members? If so, please advise one of the club officers.

We're updating the member database and looking to add a new record called "Join Date". We're aware that some of our members have been with the club for 30+ years, so month/day/year is not necessary unless you know it. Please send this info to Steve at stevemagg@optonline.net.

The Joint Clubs Conference in New London is coming up fast. This year it's being sponsored by the USS Constitution Model Shipwright Guild. Click here for a flyer and registration info. We are currently putting together a committee to handle logistics for tasks we have been assigned and those for which we're volunteering. If you're interested in serving on the committee, please let Tom R. know as soon as possible. Note that as the date approaches, the registration fee increases.

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UPCOMING EVENTS

FEBRUARY

21 - Aardvark Workshop - ***12:30 - 4:30PM***,
748 Speedwell Ave., Morris Plains
24 - Monthly Meeting - 6:45PM,
Millburn Library, 2nd Floor

MARCH

14 - Echo Group Build
21 - Aardvark Workshop - 10:00AM,
748 Speedwell Ave., Morris Plains
24 - Monthly Meeting - 6:45PM,
Millburn Library, 2nd Floor

APRIL

11 - Echo Group Build
18 - Aardvark Workshop - 10:00AM,
748 Speedwell Ave., Morris Plains
25 - Joint Clubs Conference: 9AM-3PM
New London, CT
28 - Monthly Meeting - 6:45PM,
Millburn Library, 2nd Floor

On the Horizon

Staten Island Show - *Tentative*
May 2015 (Fleet Week)

Joint Clubs Conference
April 2015 (Annapolis?)

Mid-Atlantic Conference - *Tentative*
June 2015

Tech Sessions

February - Planking (Chuck Passaro)

March - Seizing (Rich LaRue)

January Notes... *(cont'd)*

Bob Fivehouse reports that he has settled into his new Colorado digs. Check this – not only is he living in the city of GOLDEN, the name of his street is PARADISE. To top it off, he landed in 70 degree weather. Bob, you're killing us! Ever the modeler, he plans to check out the (local) Rocky Mountain Shipwrights.

We say it all the time, but it's still not enough. Thanks again to Tony and Sally Alworth for making Aardvark space available to us. If you haven't been to a quilt shop session you're missing out. The next meeting is scheduled Saturday, February 21st.

If you still owe dues, please pay Ken Schuetz. **A reminder – if you have not already paid for purchases made at the December Auction, monies are due at the February meeting (2/24/15).**

Further reminders:

- Please fill out "Books and Pubs" and "Show and Tell" forms in advance of the monthly general session. If you are not able to do this, forms will be available at the meeting.
- Wherever you see text highlighted in blue, click the text for more info. Clicking a topic ("In This Issue") will take you directly to the page on which the topic appears.

HISTORY

The Staten Island Ferry

It's a New York City icon. There are those who ride it just for the trip, especially impressive at night with its view of harbor lights and the downtown Manhattan skyline. It's the ultimate cheap date - totally free.

Ferry transportation between New York City and Staten Island (*Staaten Eylandt* before it was renamed by the British) has a long history, dating back to the 18th century. The first recorded ferry service between Manhattan and Richmond counties was conducted by private individuals using 2-masted boats called periaugers. These were small but sturdy Bermuda rigged vessels, snub-nosed and specifically designed for inner harbor service.

In the early 1800's, former NY governor and then Vice President Daniel Tompkins secured a charter for the Richmond Turnpike Company to develop a village called Tompkinsville in Staten Island's northwest corner. The charter was originally awarded to build a highway across Staten Island, but the company also received the right to run a ferry to New York.

In 1817, the Richmond Turnpike Company began running the first motorized ferry service between the two boroughs with its

Continued on Page 3

HISTORY

Nautilus, a steam powered vessel commanded by Cornelius Vanderbilt's brother-in-law. Vanderbilt bought control of the company in 1838 and ran the ferry service almost exclusively until the Civil War. It was then sold to the Staten Island Railway, a company run by Vanderbilt's brother Jacob. Keeping business in the family was a common practice at the time.

As Staten Island grew in population during the mid 1800's, ferry plant and services lagged behind. Popular pressure eventually forced an upgrade of services and newer boats were added to the fleet, all of them named for Staten Island towns. One of these, the *Westfield* suffered a boiler explosion while sitting at its slip at South Ferry during the summer of 1871. 85 people died and hundreds were injured in the explosion. Jacob Vanderbilt was arrested for murder but never convicted. The victims and their families were never compensated.

The ferry service remained under private control until a second incident forced New York City officials to take a closer look at its operations. In June 1901, the ferry *Northfield* was leaving the port at Whitehall when it was struck by a Jersey Central ferry. *Northfield* sank immediately, Quick action by its crew limited the death toll to 5 of the 955 passengers aboard, but city officials had had enough. Ferry service was assumed by the city's Department of Docks and Ferries in 1905 and has operated under municipal control ever since.

Today the ferry runs between the Whitehall Terminal at South Ferry in Manhattan and the St. George Ferry Terminal on Staten Island. It operates 24 hours a day, 365 days a year. Until 1948, the service charged the same fee as the NYC subway authority: $.05 per trip. The cost gradually increased to $.50 per round trip, but in 1997 all fees for pedestrian travel were dropped. As a direct result of 9/11, the ferry no longer transports cars, but bicycles can be carried aboard.

Annually, the Staten Island Ferry carries 19 million passengers over a 5.2 mile trip that takes about 25 minutes each way. Every day, on average, five boats carry roughly 75,000 travelers. There are currently eight boats in operation. They range in age from 11 to 51 years, and include 4 different configurations and designs. Click here for more info.

Data for this article from Wikipedia
Photo by Daniel Schwen

A PRIMER ON WOODS FOR SHIP MODELERS

We all have our favorite materials, particularly the woods we use in our projects. But have you ever said to yourself: "This isn't working. I wonder if there's some other material that might be better for this (fitting/structural member/planking/whatever)?"

On the next four pages is a matrix listing woods commonly used in ship modeling, a description of each and what the wood is best suited for. This is from an article posted on The Model Ship World Database of Articles and Downloads. Click the link for more information, including pictures.

WOOD	PROPERTIES	USES
Apple	Excellent wood for carving, milling and turning. The wood will hold a clean sharp edge and finishes to a smooth polished surface. Apple is strong and flexible, suitable for bending.	Because of this wood's versatility it is one of the top choices among model builders. Apple is suitable for natural curved timbers. The wood can be used for all aspects of model work, from fine fittings to delicate turned items and carvings to hull timbering. Excellent for bent or built-up frames, deck equipment, blocks, and deadeyes. The cream color of the sapwood makes nice planking.
Balsa	A straight grained, coarse textured wood, which is very soft, lightweight and spongy. When cut, it has a tendency to crumble and doesn't hold a clean, sharp edge. It doesn't give a smooth finish nor does it hold pins or screws very well. Extremely sharp tools are required to cut it, and it dents under finger pressure. This wood is at the top of the "don't use" list, as it can't be worked accurately in even the largest scales.	Possibly the easiest wood to cut, shape and sand. Not suitable for steam bending. Finishes fairly well but porous composition soaks up glue finish. Use for filler blocks, but has no other use for ship models.
Basswood	A straight-grained wood with a uniform texture. A first class wood for carving with a knife. Not very good for machining as the wood tends to rip or splinter under the pressure of cutting tools. Because Basswood is weak it tends to break when cut into small parts. It has poor steam-bending properties. Sawing produces a woolly surface but it sands easily. Finishing usually requires a sealer.	The main use of this wood is cutting the layers for solid hull construction or blocks for carving hulls. The easiness of carving makes Basswood suitable for the joinery work in deck framing. Usable as deck planking and the first layer of planking in POB hulls or planked hulls that are going to be painted.
Beech	Beech is a straight, but coarse grained wood with a good texture. This wood is affected by humidity plus it's brittle. American Beech is slightly coarser than the European variety. Beech can take extreme bending and will hold its shape. The wood has a very smooth and hard surface making it suitable for polished finishes. Cuts, sands and machines well. One of the best woods in its ability to hold screws and nails. A strong, hard and dense wood, turns well on a lathe. Workable with hand tools and cuts clean with a knife blade.	Very good wood for planking and bent hull timbers such as wales and deck clamps. Makes an attractive wood for framing and hull timbering, also used for treenails.
Birch	Straight-grained wood with a fine, even texture and has good strength and bending properties. It is stiff, very hard, and holds a clean edge. This is an easy wood to work with hand or power tools. Cuts clean and finishes to a smooth surface. The wood is very tough and flexible; once bent it will hold its shape.	Its prime use is for framing, hull timbering and bent hull members, although mostly used by ship modellers as plywood. It is commonly used as dowels for masts and spars. Suitable for planking. Sharp tools are required.
Boxwood	Fine, evenly textured wood. Dense and heavy and can vary in the straightness of its grain. It carves with great detail although it is relatively hard to cut, even with extremely sharp tools, but the effort is worth the labor.	Mainly used for carving, it is a superior wood for modellers, as it retains sharp edges and details to the smallest dimensions.

WOOD	PROPERTIES	USES
Bloodwood	Bloodwood is a dense wood, stiff and brittle. Because of the wood's hardness, working with hand tools or a hand carving is difficult and slow going. Best sanded gently by hand as power sanding warms up the wood and brings out the natural oils, leading to clogging of the sand paper. Machining and turning properties are excellent. Joinery work can be machined to a clean smooth surface with a crisp sharp edge. Very delicate fittings can be turned on a lathe. It can be brought to a polished, marble like finish.	For small fittings and turned items, railings, blocks, mouldings, cap rails, trim work and wales, planking for decks and on the inside and outside of the bulwarks.
Cherry	Cherry, like all fruitwoods, is a hard, dense wood, stiff and brittle and is difficult and slow to work using hand tools or a carving knife. Power sanding tends to clog up the sand paper due to the natural oils in the wood. It is best sanded gently by hand. Excellent machining and turning properties. It can be machined to a clean smooth surface with a crisp sharp edge. Delicate fittings can be turned on a lathe. Can be brought to a polished marble like finish.	Small fittings and turned items, railings, blocks, mouldings, cap rails, trim work and wales, planking for decks and on the inside and outside of the bulwarks.
Douglas Fir	Not recommended for modelling.	
Holly	Has a straight, close, very fine grain, some of which can be irregular. A quality wood with an even texture and beautiful appearance. Requires sharp tools but is an easy wood to work with. Cuts clean and smooth with hand or power tools. Capable of finishing to a very smooth and hard surface. Flexible and strong, bends well due to this low stiffness and high strength. Dry wood is essential as it has a high rate of shrinkage. Glues well. Easy to carve and holds edges better than most other woods. Will accept end fastenings with a minimum of splitting.	Holly can be used for framing, planking, decking, trim, carvings, blocks, small fittings, guns and other turnings, although mainly used for deck planking or bulwark planking. The fine texture makes the wood suitable for delicate fittings and carvings.
African Mahogany	Has a medium to coarse texture with open pores. The grain can be straight, irregular, or interlocked. Is easy to work with hand or power tools. Glues and finishes well.	Hull planking, keel, stem, rudder and general ship fittings.
Lime	A straight grained wood with a fine uniform texture. A first class wood for carving with a knife. Not very good for machining, the wood tends to rip or crush under the cutting tools. Because Lime is weak it tends to break when cut into small parts. It has poor steam-bending properties. Sawing produces a woolly surface but it sands easily. Finishing usually requires a sealer.	The main use of this wood is cutting the layers for solid hull construction or blocks for carving hulls. The easiness of carving makes Lime suitable for the joinery work in deck framing. Usable as deck planking and the first layer of planking in POB hulls or planked hulls that are going to be painted.

WOOD	PROPERTIES	USES
Maple	This is a heavy, fine-grained white wood, readily available, stable, and among the hardest of usable modelling materials. A tough strong wood. Cuts nice and clean, with excellent machining qualities. Maple will take a smooth polished surface. Carves sharp and clean with a knife but a little hard to work with using hand tools. Good bending properties.	Suitable for hull and deck planking because of its honey color. Also suitable for small fittings, model bases and display cases.
Obechi	Texture is coarse and contains a grit, which quickly dulls the cutting edge on tools. End grain has a tendency to crumble when cut. The prominent, open grain usually needs filling. Works and finishes well with very sharp tools.	Of minimal use to ship modellers. Can be used instead of Balsa for filler blocks.
Pine	Good quality pine is usually pale yellow to light brown. If the pine is of good quality, the grain is fine, straight and even. Easily worked, finishes well, and has low shrinkage.	Good for solid hulls and pattern making.
Spruce	It has a fine, uniform texture and straight grain depending on the rate of growth. Good bending qualities, works and finishes well using hand or machine tools. Good turning properties. Nails and screws without pre-drilling and has good holding properties. One of the easiest woods to cut, glue, and finish.	Great for masts and yards due to its long, straight grain and stiffness.
Padauk	Has an even, medium-fine grain but numerous pores are open making it unsuitable for most modelling projects.	Can be used for hull planking.
Swiss Pear	Pear is a fine, close-grained wood and is excellent for carving, turning or milling. It can be cut with a sharp edge in any direction. Finishes to a polished surface. Pear wood can be stained black to resemble Ebony. Flexible and suited to bending. Can be worked to delicate detail and takes an excellent finish. Selected pieces have a straight grain. Turns and cuts well with a clean sharp edge, and holds sharp detail, but has a slight dulling effect on tools. Bend with dry heat; do not steam.	This is the classic wood of ship modelling and it is used for everything from the finest carvings and fittings to hull timbering.
Walnut	A very nice wood for working with hand or power tools, although its coarse, open grain make its modelling applications limited. Bends easily when steamed or heated. Sands to an excellent finish. Cuts and carves exceptionally well, but usually can't obtain fine detail. Very stable and will not shrink or expand once in use. For its weight, Walnut is exceptionally strong.	Frames, keels, decorative planking and moldings. Well suited for hull timbering and framing.

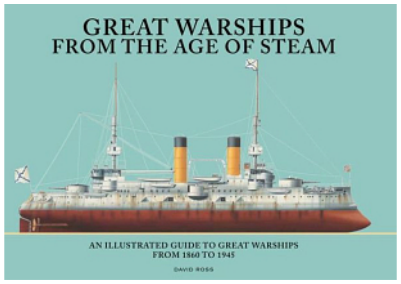
WOODS USED IN MODELING
THE FOLLOWING IS A SUGGESTED USAGE IN DIFFERENT APPLICATIONS:
Solid hulls: Basswood, pine (sugar and white).
Planking and decks: Apple, basswood, box, cherry, elm, holly, maple and pear.
Frames: Apple, basswood, birch, box, cherry, holly, maple and pear.
Bent frames: Apple, ash, basswood, box, elm, holly.
Masts and yards: Birch, box, pear, pine, spruce, and teak.
Deck equipment: Apple, basswood, box, cherry, holly, maple and pear.
Blocks and deadeyes: Apple, beech, box, holly and pear.
Deckhouses: Apple, basswood, birch, box, cherry, maple, mahogany, pear and walnut.
Treenails: Apple, bamboo, birch, box, cherry, holly, maple and pear.
Carving: Apple, boxwood, cherry, holly and pear.
Turning: Apple, box, cherry, holly, pear, and maple.
Information obtained from: County Floors, Woodcraft, Amateur Woodworker, The Wood Database.

TOOL TIME

Badger Model 121 Paint Mixer

This is one of my favorite tools. It's simple, inexpensive and it works well. The mixer head fits into all but the tiniest bottle necks. It runs on 2 AA batteries. What amazes me is how fast it works. I had originally planned to build a stand for it – the thought being I would clamp it in place, start it and move on to another task while it was doing its job. But that's not necessary. Even where the pigment has completely separated from the solvent, it only takes 1-2 minutes to completely mix the contents of a typical model paint jar. I hand blend all my US Navy WWII camouflage paints, as I haven't been able to find any pre-mixed acrylics that represent what I believe are the correct purple-blues. The Badger Model 121 is available from a variety of suppliers – virtually all of them sell it for less than $15. To see the mixer in action, click here.

BOOKS AND PUBS



Great Warships from the Age of Steam by David Ross was a Christmas present from my son and daughter-in-law. The book traces development of the capital ship from the 1860's to the 1940's, a golden age of mechanically powered behemoths ever greater in size, firepower, and technical sophistication than the ones that came before it.

The book is arranged in chronological order. It begins with *USS Monadnock*, an ironclad of the Civil War, and ends with *USS Guam*, one of two battlercruisers comissioned in 1944. In between are details of another 187 capital ships of European, Asian and American heritage. On each page, the book provides specifications and a history of each vessel on the left side and a broadside illustration on the right. Also included is an Introduction and Index.

There were a couple of things I found particularly interesting in this book: a) the amount of time it took to completely eliminate sails as a secondary source of propulsion (26 years) and b) the evolution of weapons – from rams and torpedo tubes on early models to banks of AA rocket launchers carried by the "battleship carrier" *Ise*.

The book is an interesting read. Although the plans are not detailed enough for model building purposes, they do provide a jumping off point for further research on a vessel of interest.


Yamato (1941)

USEFUL LINKS

Ship Model Society of New Jersey website
Example of website resources
Past issues of The Broadaxe
Links to resources and other clubs' newsletters
Club lending library
Model Ship World

ECHO GROUP BUILD

January 31, 2015

ECHO GROUP BUILD - Follow Up Emails

Jim Lavelle – 1/31@2:05PM

Hi Everyone,

We had a good time at Jerry's house today and covered a fair amount of ground. On hand were: Jerry, Bill, Larry, John, Roy, Tom and Jim. Echo conversations revolved primarily around shifted and cast frames.

The first order of business was to pick the dates of the next 3 meetings. We want to try, whenever possible, to get things on the calendar ahead of time so it can be posted in the Broadaxe. For February, March and April we will be meeting on the 2nd Saturday of the month. That's 2/14, 3/14 and 4/11. The February meeting will be at Larry's house, mark your calendars.

I posted a matrix on MSW of the dimensions of all frame components *(see below)* and have attached a copy to this email. Greg checked and the matrix is correct. Basically anyplace it calls for 8.25" stock you should use 8". You can check my post and his reply here.

Roy asked for a copy of my scale calculator *(see next page)*. It is attached. When you open the spread sheet you can only change one cell, that's where you input the scale you want. For example, if you want 1:96 just type 96 and it will automatically do all the calculations for you.

Someone asked about the link to John Vojtech's website. John supplies tools to scale modelers. We met him at the NRG conference in St Louis, nice guy with some very nice small tools.

Between today and the next meeting in 2 weeks Larry & I will be working on a bill of material and a process document for building a gantry like his. He will source the hardware for us. The general consensus is that a gantry like his can be had for about $20, a steal. More details will be forthcoming.

That's it from Echo land.

Jim

Echo Cross Section

Frame Component Dimensions

Frame	Notes	Floor	1st Futtock	2nd Futtock	Top Timber *NOT* at sides of port	Top Timber At sides of Port
DF0			10.00		8.00	
DF1	Notch for port sills	10.50		8.50	8.00	
1 Fore	Top Timber shifted		10.00		8.00	
1 Aft		10.50		8.50	8.00	
2 Fore	Shifted - see note *		10.00			9.00[1]
2 Aft		10.50		8.50		
3 Fore			10.00		8.00	
3 Aft	Cast - see note **	10.50		8.50		9.00[2]
4 Fore			10.00		8.00	
4 Aft		10.50		8.50	8.00	
5 Fore			10.00		8.00	
5 Aft		10.50		8.50	8.00	

Notes: 1 - Top Timber is shifted aft to form forward side of gunport.
2 - Top Timber is cast forward to form the aft side of the gunport. Use

ECHO GROUP BUILD - Follow Up Emails

Scale Calculator

Scale = 48

Fraction	Decimal	Ship Wire	MM	Real Inches	Fraction	Decimal	Ship Wire	MM	Real Inches	Fraction	Decimal	Ship Wire	MM	Real Inches
	0.014	80	0.34	0.65	5/64	0.078		1.98	3.75	35/64	0.547		13.89	26.25
	0.015	79	0.37	0.70	3/32	0.094		2.38	4.50	9/16	0.563		14.29	27.00
1/64	0.016		0.40	0.75	7/64	0.109		2.78	5.25	37/64	0.578		14.68	27.75
	0.016	78	0.41	0.77	1/8	0.125		3.18	6.00	19/32	0.594		15.08	28.50
	0.018	77	0.46	0.86	9/64	0.141		3.57	6.75	39/64	0.609		15.48	29.25
	0.020		0.50	0.95	5/32	0.156		3.97	7.50	5/8	0.625		15.88	30.00
	0.020	76	0.51	0.96	11/64	0.172		4.37	8.25	41/64	0.641		16.27	30.75
	0.021	75	0.53	1.01	3/16	0.188		4.76	9.00	21/32	0.656		16.67	31.50
	0.023	74	0.57	1.08	13/64	0.203		5.16	9.75	43/64	0.672		17.07	32.25
	0.024	73	0.61	1.15	7/32	0.219		5.56	10.50	11/16	0.688		17.46	33.00
	0.025	72	0.64	1.20	15/64	0.234		5.95	11.25	45/64	0.703		17.86	33.75
	0.026	71	0.66	1.25	1/4	0.250	E	6.35	12.00	23/32	0.719		18.26	34.50
	0.028	70	0.71	1.34	17/64	0.266		6.75	12.75	47/64	0.734		18.65	35.25
	0.029	69	0.74	1.40	9/32	0.281		7.15	13.50	3/4	0.750		19.05	36.00
1/32	0.031		0.80	1.50	19/64	0.297		7.54	14.25	49/64	0.766		19.45	36.75
	0.032	67	0.81	1.54	5/16	0.313		7.94	15.00	25/32	0.781		19.85	37.50
	0.033	66	0.84	1.58	21/64	0.328		8.33	15.75	51/64	0.797		20.24	38.25
	0.035	65	0.89	1.68	11/32	0.344		8.73	16.50	13/16	0.813		20.64	39.00
	0.036	64	0.91	1.73	23/64	0.359		9.13	17.25	53/64	0.828		21.03	39.75
	0.037	63	0.94	1.78	3/8	0.375		9.53	18.00	27/32	0.844		21.43	40.50
	0.038	62	0.97	1.82	25/64	0.391		9.92	18.75	55/64	0.859		21.83	41.25
	0.039	61	0.99	1.87	13/32	0.406		10.32	19.50	7/8	0.875		22.23	42.00
	0.040		1.02	1.92	27/64	0.422		10.72	20.25	57/64	0.891		22.62	42.75
	0.040	60	1.02	1.92	7/16	0.438		11.11	21.00	29/32	0.906		23.02	43.50
	0.041	59	1.04	1.97	29/64	0.453		11.51	21.75	59/64	0.922		23.42	44.25
	0.042	58	1.07	2.02	15/32	0.469		11.91	22.50	15/16	0.938		23.81	45.00
	0.043	57	1.09	2.06	31/64	0.484		12.30	23.25	61/64	0.953		24.21	45.75
	0.047	56	1.18	2.23	1/2	0.500		12.70	24.00	31/32	0.969		24.61	46.50
3/64	0.047		1.19	2.25	33/64	0.516		13.10	24.75	63/64	0.984		25.00	47.25
1/16	0.063		1.59	3.00	17/32	0.531		13.50	25.50	1	1.000		25.40	48.00

1" = 25.4mm 1mm = 0.0394" 25.4 = conversion factor

Tom Ruggiero – 2/1@9:33AM

Good Morning Gang,

The meeting yesterday was terrific. Thank you Jerry for hosting and thank you Jim for setting up the instructions for each meeting. I haven't thought too much about Echo up to this point because of other priorities, but I plan to start soon. Last night, I started digesting all of David's various drawings as well as the "notorious" out of scale sheer plan. When I went to print it out, I noticed that my PDF program was printing it out at 98%. I surmise, that the Adobe program scans what is to be printed, and if the 100% drawing is outside of the printable area it shrinks the drawing. What I did is indicate custom and increased it to 107%. This solved the problem of the drawing size. You will note though that the margin border disappears. It appears that possibly the drawing did not start as a standard 8.5 by 11 inch sheet.

Now some words about drawings and the real world. This is part of what I've done for a living for over forty years so please read this to the end.

When I was doing Aircraft Design in College, we had to do a lot of drafting. I would obsess with whether the dimension went to the inside, outside or center of a line. My professor told us dozens of times; "No one is going to scale your drawing". What he meant by that is that all dimensions where shown on the drawing. When someone was to build this thing, he wasn't going to scale the dimensions off the drawing. He was going to use the dimensions given on the drawing. There is a good reason for this. The first is that you don't want to pick up a compounded drafting error. Secondly, all media stretches or contracts with atmospheric conditions. This is bad enough when working from one drawing, but a real problem with multiple sheets.

ECHO GROUP BUILD - Follow Up Emails

In the real world, there are drawings called composites or General arrangement drawings. Basically, they show how the building is laid out. There is a scale and overall dimensions. However, as pieces and parts are built, there are structural drawings and fabrication drawings. These are completely dimensioned. A machinist or pipe fitter will not scale a dimension from the drawing. He will use the noted dimension and standard fitting dimensions to lay out what is to be fabricated. So, what does all of this have to do with model ships?

When these ships were designed, what was produced and what we work with is a sheer and plan. In fact these are General arrangement drawings. In fact, you will see “room and Space” noted on some of them. Then there is the contract that gives the dimensions of scantlings. So, although the drawings we use are tools, the person fabricating the ship used the written dimensions. They did not scale a part off the drawing. The frame drawings that David drew are drawn using ship craft convention as well as the scantlings in the contract. The sheer plan is a copy of the original in Greenwich. They are not the same scale.

So, what to do. First, when the port sills are located I suggest that you measure down from the top of the frame rather than up from the bottom of the keel. Why? If the drawing is 10% off, and say the distance from the keel is 5” that makes an error of ½ an inch. However, using the same 10% error, if the port sill is 1” below the top of the frame that is at .1 inch error. Almost insignificant. So, it is always better to use smaller dimensions if you suspect that the drawing is a little out of scale.

Now, if you are really a stickler for detail, the port sill height is based on the location of the deck. That is going to need to be installed at some point, but we have no details yet. Well, the contract will tell you where the deck needs to go. I note this because Toni Levine who is building a full hull of the Atalanta noted a 2” error on a drawing with respect to the deck. She needed to strip off the wale and reposition it to account for the error. Do you see my point?

As far as cutting the birds mouth for the sills. David’s instructions have you using a height gage from the bottom of the keel. For me, transfer the location to the frame drawing before you cut it out. Measure from the top of the frame down. You will get a more accurate location with less frustration.

Finally, I trial printed a few frame drawings. The 5” register is very close to right on, so these will become my fabrication drawings. Also, I plan to digest the contract to find out if I can also locate where the deck beams will go. I’ll keep you posted.

Happy Modeling,

Tom Ruggiero

PS: Jim, Is there a tech Session in here?

Jim Lavelle – 2/1@9:52AM

Hi Tom,

Thanks for scaling this. I'm down in the shop and I put it up against my keel and it matches! As a second check I put it up against a frame that was placed on the keel and it also is correct. We have a solution! My next step was to open the drawing I got from their website and print it at 100% and it is still too small. Then I noticed that your PDF doesn't have the dimensions written on it whereas the one I have does have the sizes noted. Mystery solved, there are TWO drawings, one scaled correctly and one that is small.

Everyone should use the file Tom has and toss out the one with the measurements on it.

Jim

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Larry Friedlander – 2/1@11:09AM

Great time yesterday! Anticipating the meeting prompted a major reorganization of my workroom, which I began as soon as I got home, with several days to go. I have ordered hardware from Zoro, with a couple of additions which will obviate the need to do any tapping of holes. It would really help to get a ballpark figure of how many members will want a "kit". I would be willing to cut baseboards and MDF keel boards with Jim if he has the time and inclination but that means we have to get on it NOW.
On the other hand we can just supply a list of materials and dimensions and let everyone shift for themselves.
Please send me a copy of the correct drawing for locating the port sills so I don't have to hunt around for it while I'm trying to get ready for the next meeting.
Thanks,
Larry

QUILT SHOP

January 10, 2015

The Ship Model Society of New Jersey

The Broadaxe is published monthly by The Ship Model Society of New Jersey (SMSNJ), a nonprofit organization dedicated to teaching and promoting ship modeling and maritime history. Membership dues are $25.00 for the first year and $20.00 per year thereafter.

Visit our Web Site at: http://www.shipmodelsocietyofnewjersey.org where a web version of *The Broadaxe* can be found. *The Broadaxe* is distributed by both US mail and email in PDF format.

Regular meetings are held on the fourth Tuesday of every month at 6:45 PM, at the Millburn Free Public Library, 200 Glen Avenue, Millburn, New Jersey. Guests are always welcome.

Contributions to *The Broadaxe* are always welcome, and SMSNJ members are encouraged to participate. Articles, shop hints and news items may be submitted directly to the Editor as typed manuscript or electronic files, either on discs or by email. Handwritten notes or other materials will be considered depending on the amount of editing and preparation involved.

The Broadaxe is written and edited by Steve Maggipinto, and distributed by Chuck Passaro and Ollie Ericksen.

Your ideas and suggestions are always welcome. Please submit them to Steve Maggipinto.

If any member would like an email copy of the roster, please drop a note to Steve Maggipinto at the email address listed below. If there is an error on the roster let Steve know and the roster will be amended. Please make sure that your spam filter is not blocking emails from Steve and Chuck Passaro because if it is, you won't get *The Broadaxe* and member bulletins. You can eliminate the filtering by adding Steve's and Chuck's email addresses to your contact list. Please keep the secretary informed of any changes so that the roster can be kept current. If you would like a printed copy of the roster, please send a SASE to Steve Maggipinto at the address below and one will be mailed to you. Rosters are also available at the monthly meetings.

Please keep your contact information up to date. Your email address is particularly important because that is the main avenue of communication for club announcements. In case of emergencies such as last-minute cancellations due to weather, emails will be sent to the members.

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