The Broadaxe

THE SHIP MODEL SOCIETY OF NEW JERSEY

Founded 1981

Volume 35, Number 10

Newsletter of the Ship Model Society of New Jersey

October 2017

In This Issue

Our next club meeting is **October 24** at **6:45PM**

ROSELAND PUBLIC LIBRARY

OCTOBER NOTES...

The September meeting was opened at 1840 by President Chuck. There were 22 members in attendance and one guest: Kurt Johnson, a wood carver and regular on *Model Ship World*, who is attending his second meeting. We hope that everyone received the September *Broadaxe*. The format was a little different. It looked great! Thank you *Broadaxe* Editor, Steve Maggipinto. For meeting photos, click here.

Treasurer Al presented the monthly status of the club finances. We are doing okay.

Next month's meeting is Tuesday, October 24th. The theme is *"Bring a Model Night"*. In response to last month's observation that fewer and fewer models seem to be turning up for Show & Tell, we had a good representation at the September meeting. Please keep up the good work. ALSO, note that Secretary Tom had a tough time trying to piece together reviews of the models that did show up in September. Please help him out by completing a Show & Tell form before the meeting and 1) (***Preferably***) emailing the form as an attachment to Tom before the meeting; 2) Handing him a hard copy before the meeting starts. The forms are available at this link, and can be filled out online.

Dinner Cruise on Lake Hopatcong. Roy Goroski and others reported on the Lake Hopatcong Cruise. It was held on Saturday, September 16th, and was dubbed the "Half St. Patrick's Day Cruise," as the date was six months from March 17, 2018. The crew wore kilts and there was Irish music for the brunch. The weather was excellent and brunch was simple, but very good! The cruise was a very enjoyable circumnavigation of Lake Hopatcong and included running commentary of the Lake's history as well as views of the very nice residences, hotels and other structures surrounding the lake. Thank you Mason Logie for setting this up.

Joint Clubs. Tom Ruggiero has prepared a list of all of the activities that will be required for the conference on April 28, 2018, in New London, CT. President Chuck has already set up a draft registration form and we have a tentative speaker. The current committee consists of Chuck, Tom R, Al Geigel, and Jeff Fuglestad. Chuck asked Tom to provide a list of all the items and work that needs to be done. We'll be asking members for help with a variety of tasks.

Since Larry Friedlander has ended his term as our meeting "caterer", (thank you for your service, Larry and Roy!) at our last session Chuck advised that if we don't get a volunteer to pick up the coffee and food, we will be dispensing with snacks and coffee at the break. To this point, no one has volunteered. A motion was raised to

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UPCOMING EVENTS

OCTOBER

21 - Group Working Session
24 - Monthly Meeting - 6:45PM,
Roseland Public Library, 1st Floor
26-28 - NRG Conference, St. Petersburg, FL

NOVEMBER

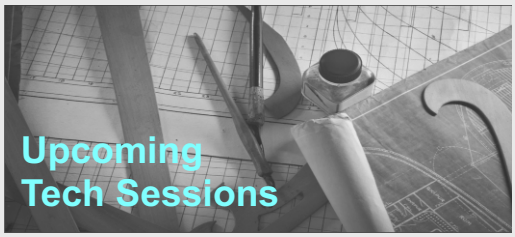
TBD - Group Working Session
28 - Monthly Meeting - 6:45PM,
Roseland Public Library, 1st Floor

DECEMBER

TBD - Group Working Session
26 - Monthly Meeting - 6:45PM,
Roseland Public Library, 1st Floor

On the Horizon

Trip to Gulliver's Gate (Times Square)



October 24 - "Bring a Model Night"

have different individuals take responsibility for bringing the coffee and refreshments on a rotating basis. This was not approved. So, unless someone volunteers, going forward there will be no food or beverages at the break.

Chuck noted that he would like to update the Club's website with additional pictures of completed models. We ask that you take a few photos of your completed models and email them to Chuck.

TECH SESSION

Chuck Passaro demonstrated several methods for making very realistic flags. Before printers and computers, several well-known model builders used to coat tin foil with gesso and then paint the flag on the gesso. After drying, the tin foil allowed the flag to be bent into a convincing shape.

Chuck uses gift wrap tissue paper. He prints the flag that he wants on plain bond paper on an ink jet printer. Then Chuck tapes a piece of tissue over the printed flag. Following this, he reloads the paper into his ink jet printer and prints the flag again onto the tissue.

Many newer printers have multiple settings. Chuck showed results using two different ink settings. The more saturated one produced some smearing; toning the setting down a bit resulted in one that did not smear. You need to experiment with the settings on your printer to find the one that allows the ink to most effectively soak through the tissue. Note that this technique does not work with a laser printer.

Next, Chuck fixes the flag to a temporary pole and sprays it with matte fixative (Krylon Matte finish) to stiffen it. It is best to print out a reference photo of a hanging or flying flag to get it to drape convincingly.

20th Century History

HOW THE ALLIES DEFEATED THE U-BOATS AND WON THE BATTLE OF THE ATLANTIC

Part 2 — Analysis

The mid-1943 success of anti-submarine warfare in the Atlantic was dramatic, but although it appeared to happen overnight, it was the result of years of effort on a variety of fronts and happened for a multitude of reasons. Here's a brief summary of some of the major reasons the Allies won the Battle of the Atlantic.

TECHNOLOGY

Radar. in 1941, increasing numbers of Allied escorts were equipped with radar, thereby making it easier to detect U-boats on the surface at night and in fog. U-boats liked to attack at night on the surface. Surfaced, they had a top speed of about 18 knots, submerged, about 8 knots. Surface attack provided more speed and maneuverability. It also allowed communication with other U-boats and U-boat Headquarters in Main-et-Loire, France. Although the Germans developed a low-frequency radar detector that was effective early in the war, the Allies later switched to a higher frequency radar for which the Germans were never able to find a countermeasure. No U-boat was ever equipped with radar.

HF/DF. High Frequency Direction Finder, commonly pronounced "Huff-Duff", this was a significant tool in the hands of the Allies. With 2 escorts equipped with HF/DF, a radio signal from a U-boat could be triangulated, thereby revealing its location. This played into one of the weaknesses of German submarine warfare in WWII – submarine commander Dönitz's insistence on constant U-boat communication with Headquarters. The Germans never discovered the existence of HF/DF, and attributed frequent, uncanny detection to some unknown "special" (possibly magnetic) Allied electronic device.

INTELLIGENCE

B-Dienst was a department of the German Naval Intelligence Service that dealt with the interception and recording, decoding and analysis of enemy radio message traffic. Early in the war, the unit broke the Allies' merchant codes and was thus able to effectively station wolf packs in the path of advancing convoys. The breach was discovered many months later by the Americans through painstaking review of German messages and investigation of a few striking coincidences. The code was changed, and never rebroken by the Germans.

Enigma. The German military used 2 Enigma codes: one for the army and air force, the other for the navy. Of the 2, the navy code was much more complex. In initial form, it utilized key sheets, a keyboard and 3 rotors that were interchangeably selected every other day from a set of 8. On May 9, 1941, crew members of the destroyer *Bulldog* boarded *U-110* and recovered her cryptologic material, including tables and current Enigma keys. The captured material allowed all U-boat traffic to be read for several weeks, until the keys ran out. The familiarity that codebreakers gained with the usual content of messages helped in breaking new keys. Throughout the summer and autumn of 1941, Enigma intercepts (combined with HF/DF) enabled the British to plot the positions of U-boat patrol lines and route convoys around them. Merchant ship losses dropped by over two-thirds in July 1941, and the losses remained low until November. In February, 1942, the 3-rotor Enigma system was replaced by a 4 rotor version. 4-rotor messages were not effectively broken until December, 1942. In this effort the Allies made use of large computers called "bombes". To the very end of the war, the Germans firmly but wrongly believed that the Allies were incapable of reading naval Enigma traffic.

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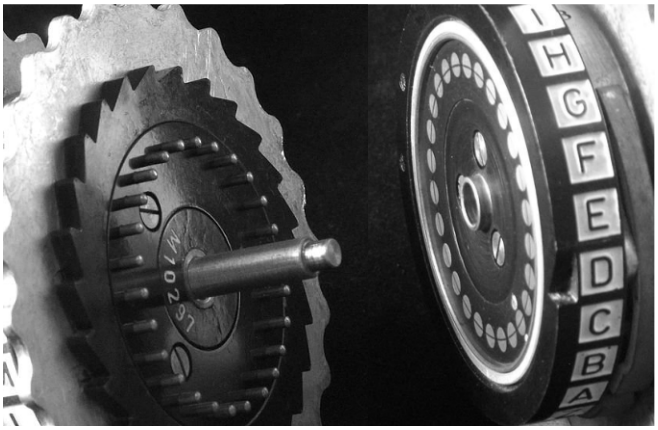


Enigma rotors

20th Century History

FLEXIBILITY

At the outbreak of WWII, each side exhibited its own brand of stubbornness and pigheadedness. The difference is the Allies came around to alternative ways of thinking; the Germans did not. A good example is the use of civilians. Early on, the British turned to academics, scientists, mathematicians, even artists and lawyers for answers to counter the U-boat menace. Top men in these fields (several of whom would go on to win Nobel Prizes) brought a variety of backgrounds and perspectives to the table and made major contributions toward solving the problem. One artist, for example, recommended that the undersides of Allied sub-hunting aircraft be painted white. It was a simple solution that proved to be very effective; experience proved that aircraft painted this way could approach a submarine much closer before being detected than one painted in darker colors. Another example: University professors, using probability theory and known U-boat characteristics, showed that aircraft-delivered depth charges set to explode at 50 feet vs. 150 feet (the common practice) resulted in significantly more kills. In contrast to British openness, the *Kriegsmarine*, through a combination of distrust, conceit and paranoia, had no room for civilian thinking in the development of weapons and tactics.

TACTICS

In the Battle of the Atlantic's early months, the scarcity of convoy escorts necessitated sticking close to the convoy during U-boat attacks. As time went on and more escorts became available, tactics changed. With the advent of radar and HF/DF, submarines started becoming "visible" at greater ranges and escorts became increasingly aggressive. Experience showed that immediate, high speed pursuit of attackers paid dividends in keeping U-boats at bay and even preventing effective formation of wolf packs. This was just one of several new tactics the Allies initiated in 1943.

WEAPONS

Aircraft. Aircraft were among the most effective weapons the Allies employed in the Battle of the Atlantic. Flying from Canada, England, Iceland and Greenland, specially modified B-24's designated VLR (for Very Long Range) were able to cover nearly the entire North Atlantic from Newfoundland to Great Britain. Unfortunately, as WWII began, there was a great deal of reluctance on the part of the air forces on both sides of the Atlantic to release bombers for search aircraft. Eventually, tight fists relaxed; the results were dramatic.

Hedgehog. Hedgehog was a spigot mortar that fired 24 antisubmarine projectiles in quick succession. The spigots were angled, and release was automatically timed such that all 24 projectiles entered the water at the same time in a large oval pattern. Unlike depth charges, Hedgehog mortars exploded only on contact. This allowed virtually immediate confirmation of a hit or miss. The weapon provided an added benefit—an increase in the ability to maintain sonar contact at short ranges. As range shortened, so did the time taken for the sound pulse to reach, and then return from, the target. Eventually, the sonar operator received an echo almost simultaneously with the emitted pulse, a so-called 'instantaneous echo', making target tracking difficult. Hedgehog allowed the target to be attacked from a greater distance, continuously within the usable range of sonar equipment.

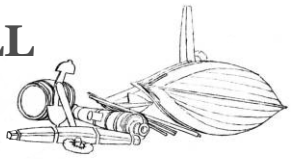
Leigh Light. Detection by radar-equipped aircraft could suppress U-boat activity over a wide area, but an aircraft attack could only be successful with good visibility. U-boats were relatively safe from aircraft at night for two reasons: 1) radar in use at this time could not detect them at less than 1 mile; 2) flares deployed to illuminate any attack gave adequate warning for evasive maneuvers. The introduction of the Leigh Light by the British solved the second problem, thereby becoming a significant factor in the Battle for the Atlantic. Developed by RAF officer H. Leigh, it was a 22-million candle power searchlight mounted primarily to Wellington bombers and B-24's. These aircraft first made contact with enemy submarines using air-to-surface-vessel (ASV) radar. Then, about a mile from the target, the Leigh light would be switched on. It immediately and accurately illuminated the enemy, giving U-boat commanders less than 25 seconds to react before they were attacked with depth charges.


Leigh Light

The Battle of the Atlantic was long and complex, ebbing and flowing at different times and at different levels for both sides. The above paragraphs contain a mere sample of the many measures employed by the Allies to win the war against the U-boats.

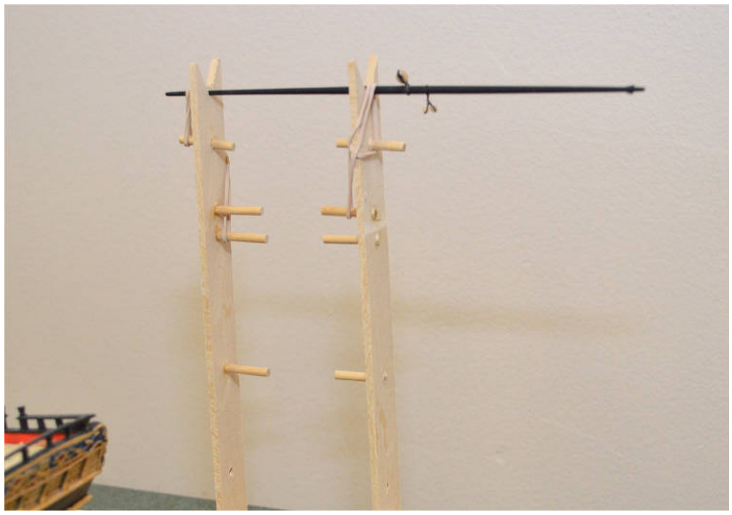
Data for this article from Wikipedia

SHOW AND TELL



Liverpool – Tom Ruggiero

We have seen Liverpool many times. Tom has completed all of the yards and is currently rigging them with blocks and footropes. An interesting issue was deciding what method was used for the driver sail at the stern. Most models show a gaff and boom. However, this is not correct prior to 1790. Originally, there was a lateen yard and sail. In the mid eighteenth century, British practice was to change the plan of the sail such that it would lace to the mizzen mast. The long mizzen yard was retained in this period. There is some conjecture that designers held onto the long yard so that it was available as a spare for the fore or main topsail yards if they should become damaged. In about 1790, the British went to a simple gaff with a loose-footed driver sail. Not long after that they added a boom and that is the type of rig that we normally see on models. Since the Liverpool is being depicted as she was when in the Colonies, Tom will be using the mizzen yard and the sail laced to the mast. The plan is to install sails before crossing the yards, and to attach the yards to the masts before they are permanently stepped. We will see how the plan goes as this is his first attempt at silk span sails. Tom did do furled tissue sails many years ago for a model of a pilot boat. *Liverpool* will be significantly more challenging.

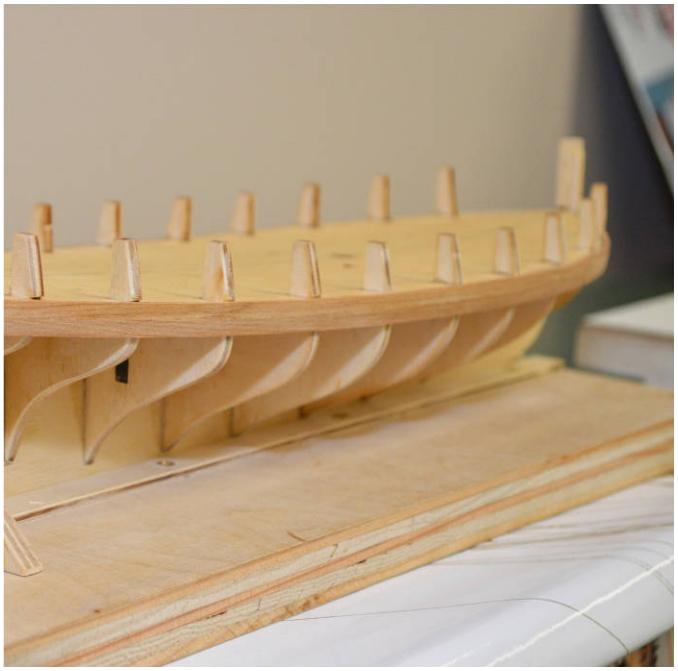


SHOW AND TELL

French Cutter *Le Cerf* – Kurt Johnson

The prototype of this vessel was in service from 1779 - 1781 and was in a flotilla commanded by John Paul Jones. From page 284 of *Give Me a Fast Ship: The Continental Navy and America's Revolution at Sea* by Tim McGrath, "The *Cerf*, a cutter of 18 guns, commanded by Enseigne de Vaisseau Varage (Benjamin Franklin gave him a commission in the Continental Navy) sailed with John Paul Jones when he sailed in *Bonhomme Richard*."

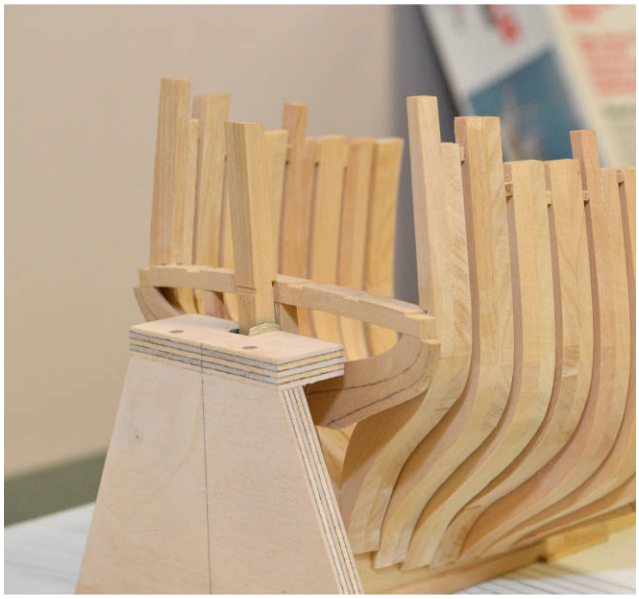
This is Kurt's second meeting. He is working on *Le Cerf* in 1:72 scale from a Czechoslovakian Duscick kit. Duscick is a relatively new manufacturer that uses laser cut parts extensively. Kurt noted that the quality is excellent and the kit arrived in six days. Daniel Duscick is the owner and is very personable. Kurt selected this particular subject because he always wanted to attempt a clinker planked hull. The deck is a single laminated piece with laser etched planking seams. Kurt noted how the gun carriages are rigged significantly differently from the British and American practice, especially in that the breeching rope threads through the carriage. Separate from the kit, Kurt purchased the plan set and descriptions in 1:48 Ancrie. Other than the scale, it complements the kit very well. Looking forward to seeing the progress on this good looking kit of a very interesting and different vessel.

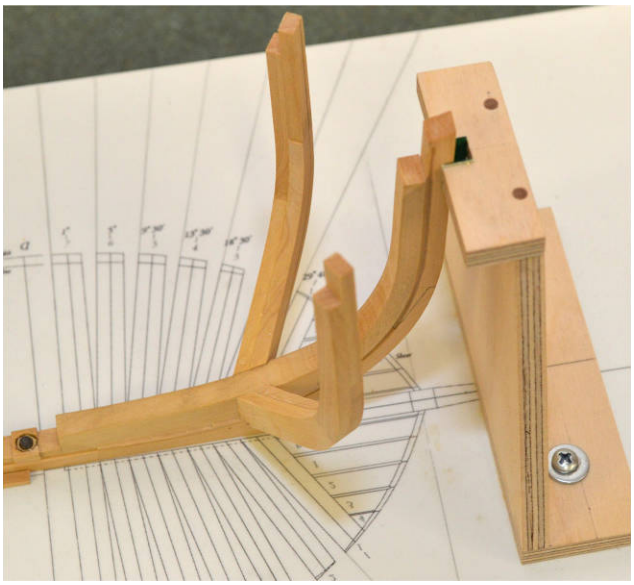


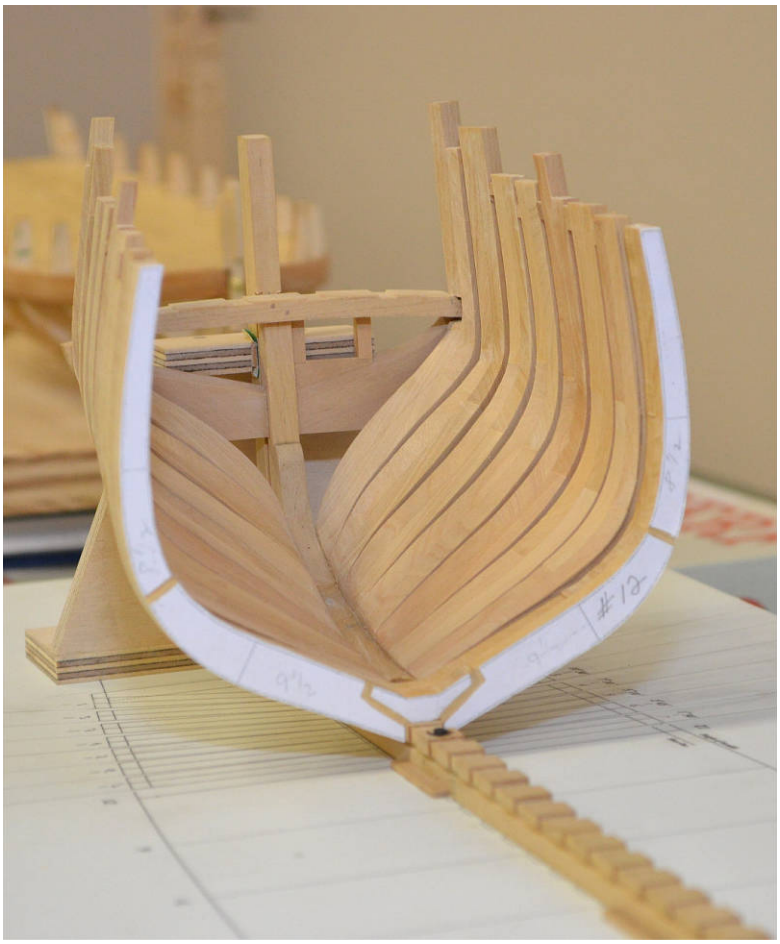
SHOW AND TELL

Hayling, 1760 – Mike Rodgers

Since we last saw the model, Mike completed the wing transom, the rearmost seven cant frames and the first two forward cants. The last cant was the hardest to do because it was set higher than the others. So, he made the first full frame adjoining it so that he could lay in the location of the floor timber. He installed the two forward cant frames so that he could get the angles for the hawse pieces correct. Each full frame has five different thicknesses of wood. He ordered wood to exactly the correct scale thickness. Good progress, Mike.



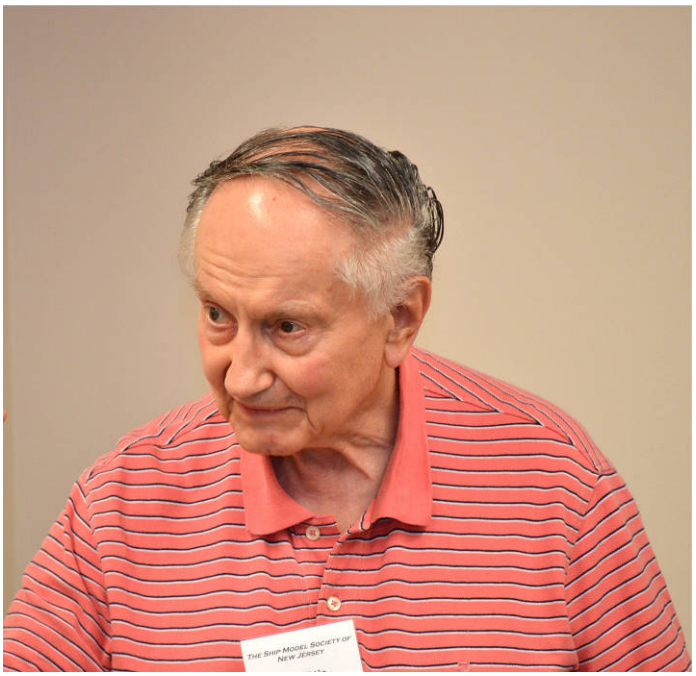




SHOW AND TELL

Robert E Lee – Don Otis

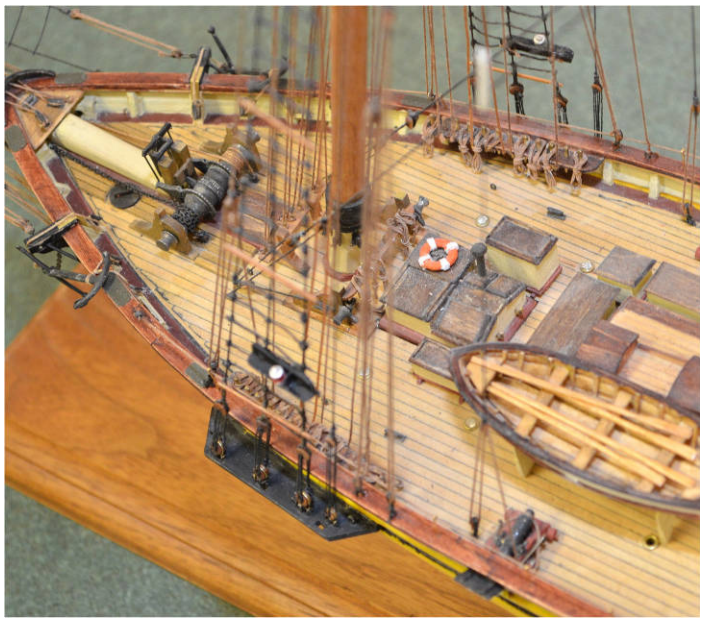
This is a post-Civil War River boat that was built in 1866. The model is a Scientific Kit and is 15 inches long with a 6 inch breadth. As he does with several of his models, Don is building this for a friend who did a special favor for Don and his wife. Chuck asked if Don started working on the model that morning. Don replied that he started three weeks ago. Still, amazing progress.



SHOW AND TELL

Pride of Baltimore II – Rich LaRue

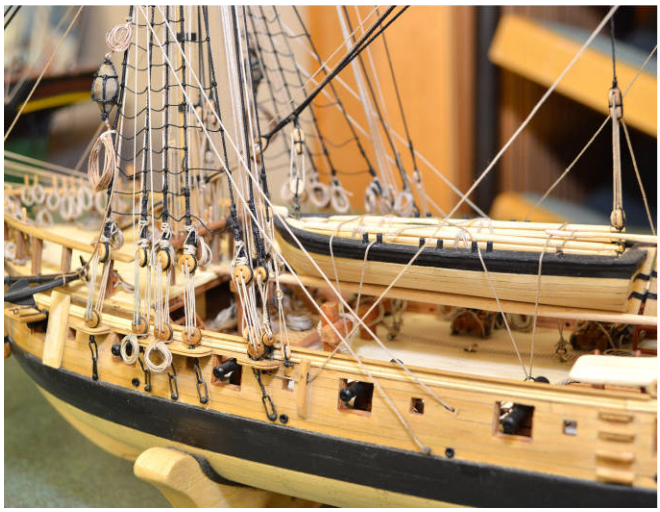
The *Pride of Baltimore II* was built in 1988. It is a reproduction of an early 19th century Privateer. The hull form is what has come to be known as a Bermuda Sloop, a very fast hull form. Rich's model is based on the Model Shipways kit. The scale is 1:64. This was Rich's first model that he started in 1991. It is very handsome.



SHOW AND TELL

Rattlesnake – Ken Whitehead

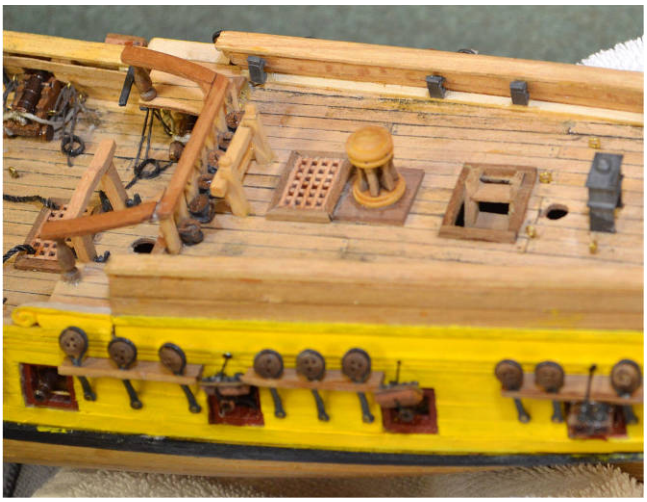
Ken brought back his in-progress kit bash of *Rattlesnake*. The model is 1:64 scale and was built in 1781. Since it was captured on its first cruise, it spent much of its life in the Royal Navy in the Baltic and North Seas. The rigging is complete using David Antscherl's *Swan Class Volume IV* for doing the open hearts for the stays. Ken needed to make some modifications as the Swan class is somewhat different than the rigging shown on the rigging plan for this privateer. Note that since it was taken into the Royal Navy, later on it could have been modified to the British establishments. For example, Rich needed to change the locations of the Main sheets and braces. The only thing remaining to be done is hanging a flag. Ken was waiting for tonight's Tech Session before he did that. Great job, Ken.



SHOW AND TELL

Rattlesnake – Steve Fletcher

The second *Rattlesnake* is the Mamoli kit version. It is also 1:64. Steve has the hull completed, but notes several incorrect details and ill-fitting parts. Steve intends to make it right. Based on inspecting Ken's model, he says that he has no plans to rig it. As noted before, the plans are translated from the Italian and are tiny and sparse. For example, the instruction for the ship's boat consists of a picture and two sentences. You'll get through it nicely we're sure, Doc.

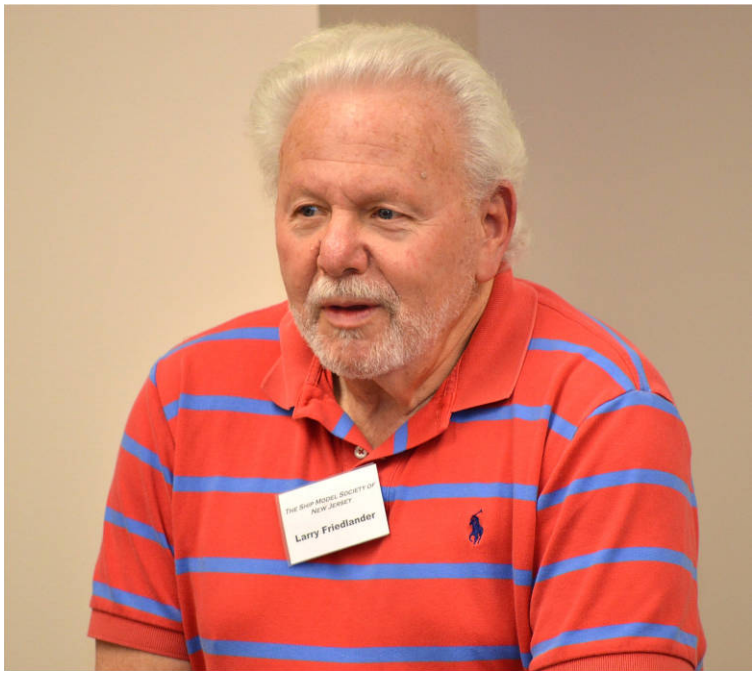


SHOW AND TELL

Hannah – Larry Friedlander

The *Hannah* was the first craft in the Continental Navy. It was a converted merchant sloop (some say a fishing sloop). The appearance is conjecture based on written records and period craft of similar purpose and size. There are no original plans or drawings.

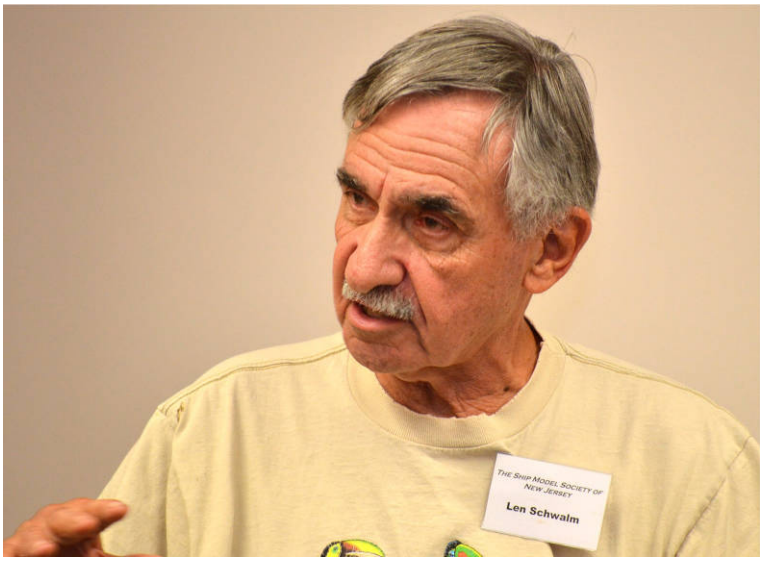
Larry brought in two models. One was started by our late friend and colleague, Tom McGowan. The other was made by Larry as part of the group build project that we did a long time ago. The frames are doubled using the Harold Hahn "upside down" method. The frames are cut from several glued up pieces with overlapping joints. As Larry pointed out, this is stylized and is not the prototype practice as we see in Mike Rogers' *Hayling*. Larry is planning to complete Tom's model. He has the wood to finish the deck. He will make the masts and spars from boxwood and will likely rig it as well. Looking very good, Larry.

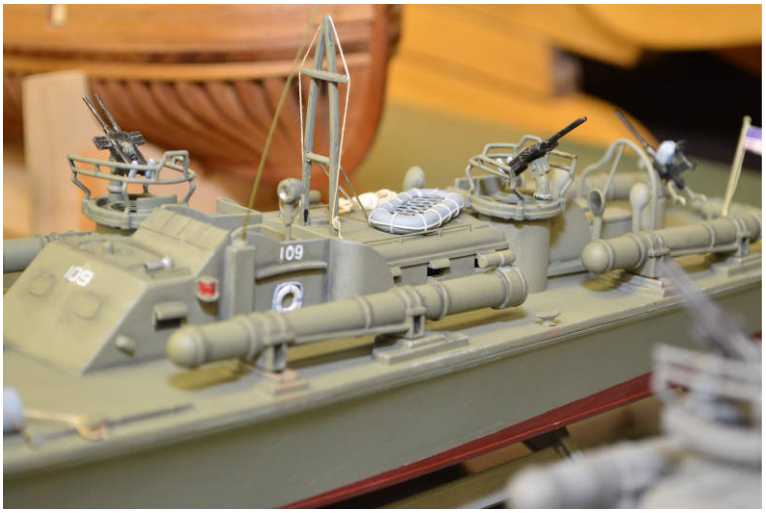


SHOW AND TELL

Elco Class PT Boats – Len Schwalm

Len brought in two die cast 80-foot *Elco-class PT boats* that he purchased at Toys"R"Us for $20. He extensively modified the boats. One of the boats he accurately modified to PT-109 configuration, Lt. John F. Kennedy's command. The field artillery piece that was added on the fore deck (a 37-mm howitzer) was scratch built. The scale is 1:65. Very well done, Len.

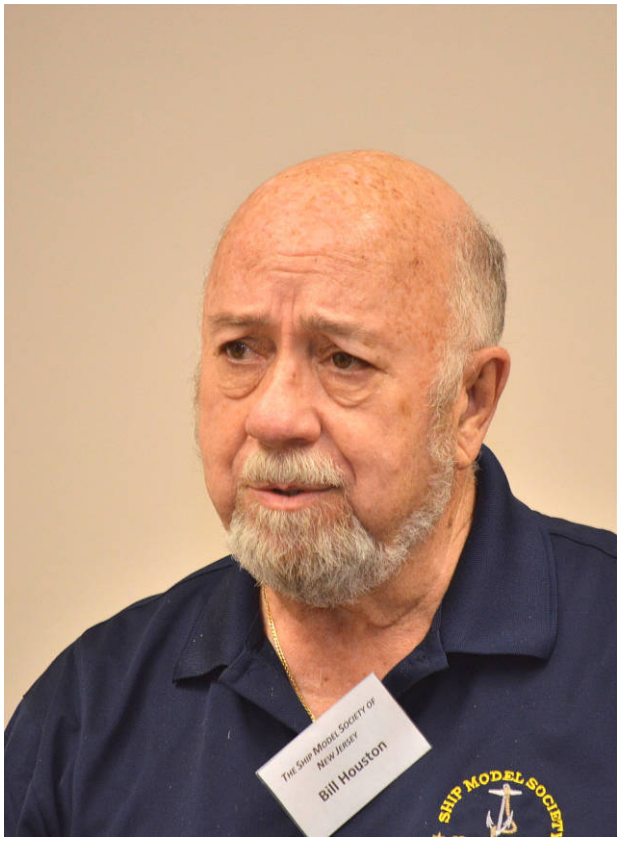




SHOW AND TELL

Extreme Clipper – Bill Houston

This model was owned by a Merchant Marine Insurance Broker in Smoke Rise, New Jersey. It was given to Bill by someone who needed to downsize and simply didn't want it anymore. The model is just the hull of what appears to be a lumber clipper in about 1:96 scale. The hull is fully coppered with individual plates.



Queen Anne Style Barge – Chuck Passaro

The barge is nearly completed and Chuck has just made the sweeps from laser cut pieces. These he painted red. He has applied a dolphin/dragon frieze to the blade of the sweep. All that's left is a few more carvings and casing the model. The kit will be extremely well received, we're sure.

TOOL TIME

John Maughan's grandfather was a patternmaker at the Philadelphia Naval Shipyard from the 1940's through the '70's. John has his toolbox and has located several wood patterns and castings for tools that he was in the process of making. John's grandfather also made very large patterns in rooms the size of a gym.

Philadelphia Navy Yard, 1923

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 Roseland Free Public Library, 20 Roseland Avenue, Roseland, 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 edited by Steve Maggipinto. Your ideas and suggestions are always welcome. Please submit them to Steve Maggipinto at stevemagg@optonline.net.

If any member would like an email copy of the roster, please drop a note to Tom Ruggiero at the email address listed below. If there is an error in the roster let Tom know and the roster will be amended. Please make sure that your spam filter is not blocking emails from Tom because if it is, you won't get member bulletins. You can eliminate the filtering by adding Tom's email address 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 Tom Ruggiero 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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