

**Newsletter of the Washington Ship Model Society**

*For the Mutual Benefit in Model Ship Building; for the Exchange of Ideas; and to Preserve for Posterity Scale Models of Historic Vessels, we Associate Ourselves Together to Form This Washington Ship Model Society*

**EXTRA - EXTRA!!**

**FEBRUARY MEETING IS WSMS AUCTION TIME!!**

**Still Time to Make That New Year's Resolution!**

*"I 'ill Complete Last Year's Model and Get Started on Another 'By March"*

**SKIPPERS CORNER**



The club has done very well in a number of high visibility events over the last three months. Let's keep it up as we process into February. Let's have a Great turn out at our annual lunch/auction currently scheduled for

Saturday, 11 February at the Rhodeside grill in Arlington Virginia (further details elsewhere in the Lynx). Also, remember the joint Tidewater/WSMS meeting in Richmond Virginia on Saturday, 25 February. This has been extremely enjoyable event with lots of ship models both on display and in competition and a WORLD-CLASS assemblage of vendors. I hope to see our traditional great turn out at both events.!!

**Minutes January 14th WSMS Meeting**

The following members were present:

- |               |               |
|---------------|---------------|
| Joel Labow    | Roger Frye    |
| Carl Erickson | Bill Black    |
| Tim Rulon     | Doug Wilde    |
| Rick Yorczyk  | Rolf Thoresen |
| Brion Boyles  |               |



**Old Business:**

Joel discussed the auction to be held as part of the February meeting at the Rhodeside Grille in Arlington. The meeting will start at 1000. The basement is reserved for our use. Food and beverage service is available. <http://www.rhodesidegrill.com/home>

There was a short discussion about the IPMS show in Richmond on February 25th. The Club plans to exhibit. The possibility of hosting/participating in a Middle Atlantic Regional Meeting is tabled for now.

**February WSMS Meeting**  
**Saturday, February 11, 2017**  
 RHODESIDE GRILL  
 1836 WILSON BLVD,  
 ARLINGTON, VA 22201  
 PHONE. 703-243-0145

*From the George Washington  
 Memorial Pkwy*

Take S Arlington Blvd to 14th St N.  
 Take the N Queen St/14th St/Fairfax Dr exit from S  
 Arlington Blvd  
 Take N Rhodes St to Wilson Blvd  
 Turn left onto Wilson Blvd  
 Rhodeside Grill will be on the left



**SEE YOU THERE!**

Members discussed recruiting ideas that Larry Valet had sent out in an email to grow our membership. Doug Wilde and Carl Erickson also contributed ideas. We are looking for venues where we could place our informational trifold brochures such as model or hobby shops/stores. Carl mentioned that IPMS is really largely plastic oriented. Roger Frye suggested that we consider a road trip next year to Cabin Fever Expo. (<http://www.cabinfeverexpo.com> )

Joel reminded those present that it's time to start thinking about our annual elections/soliciting candidates.

#### **Show and Tell:**

Tim Rulon brought a Dumas Kit of a Typhoon runabout that he had purchased. He discussed his plans for motorizing the kit. The kit was partially complete and had issues with the shaft being misaligned. Tim discussed his plans for fixing that and fiber-glassing the hull.

Doug Wilde brought a model of the Hoche, a French Battleship completed in 1886. The model is 1/350 scale. It's a resin kit that he was able to score for \$142 instead of a regular price of \$190. Doug also showed a picture he found on Ebay of an experimental torpedo boat. On Google Images, use torpedo ball boat as a search term. Doug's photo usually comes up about 1/3 of the way down the page.

Last item was candlestick phone that Doug obtained. It came from the ship that became the USS Wolverine. Doug also showed slides from his recent visit to the Air Force Museum andn Wright Patterson Air Force Base in Ohio. There were some interesting pictures and information about air dropped lifeboats that the Air Force developed after WW II.

Rick Yorczyk brought his submarine. He discussed building the binnacle, periscope, and handrails for the sail.

Rolf shared a 1775 era Swedish galley with 12 oarsmen. The was a large cannon in the stern that fired directly aft.

Brion shared an interesting website Electronic Goldmine (<http://www.goldmine-elec-products.com> ) along with issues he experienced in powering multiple accessories on Shiloh.

Roger talked about whaleboats that he had construction for the Cape Cory. They are both lap-straked and clinkered. He recommended using holly wood if you need to be bend wood for something like an oar or tiller. The Cape Cory was sunk off Brazil by the CSS Alabama. The subsequent insurance settlement after the war provided excellent description of the ship and her cargo.

The meeting adjourned at Noon.

---

## **BRIDGE ANNOUNCEMENTS**

**Skipper** – I remain committed to my goal of revitalizing our practice of providing at our monthly meetings presentations on products and techniques that our members are using to solve modeling problems and forge new pathways! Please submit ideas for presentations at meetings or articles for the Lynx to me or Lou or anyone on the bridge. To kick start the process, I again challenge my Bridge Team to be the 1<sup>st</sup> to take up the gauntlet.

**1<sup>st</sup> Mate** –  
Nothing to report

#### **Ship's Clerk -**

I will have the name tags with me as well as coffee mugs for distribution at each meeting.

#### **Purser -**

We are solvent. At yearend 2016, 6 months through out fiscal year a detailed financial report was rendered to the Bridge. The finances for the year will of course be further strengthened by the auction revenue in February.

26 members have paid their dues for this fiscal year, of which 14 have prepaid next year's dues, and one for FY 2018-19.

## Webmaster's Report

For the month of December 2016, 376 unique visitors looked at our website, a record for the year. For the whole calendar year 2016, there were a total of 4,769 visits to the site viewing 8,357 pages.

**Commodore Wilde** – Old Dominion Open model show is scheduled for 25 February 2017. WSMS has been invited again to be a participant. Here is the website on the show and competition:

<http://ipmsrichmond.org/contest.html>

Each year the Richmond IPMS folks set aside three/four tables for the WSMS as well as three/four more for the Hampton Road crew. This year WSMS is even more involved as we are sponsoring all but one of the awards for maritime models.

I still need a show of hands of those who plan to attend as well as what models they can bring. A good showing like last year or Oxford would be most excellent. If you cannot attend but would trust us with a model or three of yours, please let me know. This show is a lot of fun every year. I cannot overemphasize this. The modelers

of the Richmond IPMS are very good and the show well attended. We have a steady stream of people stop at the WSMS tables to admire our work and talk about their interests. And they have a pretty awesome group of vendors, so be sure to bring some cash with you. Let me know via my email [dbwilde@comcast.net](mailto:dbwilde@comcast.net)

## WSMS Webmaster

For the month of December 2016, 376 unique visitors looked at our website, a record for the year. For the whole calendar year 2016, there were a total of 4,769 visits to the site viewing 8,357 pages.

**Lynx Editor** - Members are encouraged to assist with the newsletter by sending him material that can range from a complete article with pictures to tips, websites, pictures of their work, interesting events..., Note: if any of the material is gleaned (not plagiarized) from other sources, also provide information for the source so appropriate attribution can be made. Also, if any member is looking to sell our purchase a ship-model related item consider using the Lynx's "CLASSIFIED ADS." It's free to WSMS members.



## WSMS NEWS & VIEWS

### WSMS Auction Time

This month's meeting will convene downstairs at Rhodeside Grill in Arlington at 10AM and run until 2PM. Instead of regular show and tell type meeting this one will be one of our periodic auctions where WSMS members and strikers who have attended at least two previous meetings will get the opportunity to bid on a great selection of ship models, and material related to the craft such as reference books and periodicals, ship modeling supplies and parts, etc. To bid, a member must be recorded with the purser as having his dues paid up. Strikers will qualify for membership by virtue of this being their third meeting thus qualifying for being

voted in as a member and can pay dues at that time. This will be the second time that we have held our auction at Rhodeside based on the warm welcome and great space they provided us to meet in. Rhodeside Grill is a cozy neighborhood restaurant decorated with rustic wood tones and walls adorned with vintage photos taken around Arlington and Washington, DC. They offer 12 taps with local craft brews and an extensive bottle and can menu as well. In addition they offer an eclectic American menu with many delicious options to choose from. Whether appetizers or a full lunch entrée, so come hungry and thirsty! Pictured here are only a few of the kits you will be able to bid on!

Carl Erikson received a large donation for our auction from a Mr. Robert Backhaus

**BOOKS**

***The Ship Model Builder's Assistant* by Charles Davis**

***The Built-up Ship Model* by Charles Davis**

***The Anatomy of Nelson's Ships* by C. Nepean Longridge**

***United States Frigate "Constitution" by USN Bureau of Construction and Repair***

*(with accompanying set of 8 very detailed plans)*

***Old Ironsides* by Dorothy Richard, Lt Commander, USN**

**HMS VICTORY - Mid Ship Cross Section 1/98** wooden kit by Corel of Italy, retail price \$199.99. Kit has been barely started and what has been done is very well done. It appears to be complete with pieces such as cannons, blocks, etc in original sealed packaging.

**PBR 31 Mk II "Pibber" Patrol Boat, River - VietNam war era 1/35 scale Plastic kit by Tamiya, retail price c. \$30.00 – condition like new as pieces in original plastic bags**

**KITS**



\*Some of this material for the article is attributable to the Revell website: <http://www.revell.com/news/about-us.html>

**Light Seal Support Craft LSSC** - VietNam war era 1/35 scale plastic kit by DML, retail price c. \$45.00 combined in the box with it is DML 1/35 kit for 4 Navy Seal figures – condition good as pieces have been taken out of their plastic bags but it appears to be complete and in good shape.

**Donations by Carl Erickson**

Coffee/Tea Mugs:  
Royal Navy, purchased from RN Museum gift shop  
U. S. Coast Guard, purchased at USCG Headquarters, Washington, D.C.

30 Profile Publications “Warship” including HMS Dreadnought, Cossack, Graf Spee, Emden, Belfast, Hood , Konig,

**WSMS INVITED BY WASHINGTON DC ARMY NAVY CLUB TO EXHIBIT WORK**

*By Lou Husser*

This past December, MG Altenburg, a past President of the Army and Navy club and now a member of its board formally invited the WSMS to display Naval-themed owner cased-models in prime locations throughout the club. Vince McCullough is our first member to have a model exhibited. The model is his 1:350 scale WWII era USS Atlanta. The Army and Navy Club is located on Farragut Square in downtown Washington DC. It traces its roots to December 1885 when seven Army, Navy and Marine Corps veterans of the Mexican and Civil wars met to form the United Service Club. In 1891 the Club was reincorporated as The Army and Navy Club. It is believed that at least 5 past and present members of the WSMS were or are ANC members.

On Thursday, 5 January a brief ceremony attended by MG Altenburg, including the club’s general manager, and several staff members conducted a brief ceremony welcoming Vince and his model. Lou Husser, both a WSMS and ANC member and who coordinated the invitation to display, was also in attendance. The model is located in the main lobby of the Club. Following is an extract from the ANC’s newsletter announcing the display.



*‘The Army and Navy Club Library Trust Fund is pleased to announce a collaboration with The Washington Ship Model Society. The ANC extended an invitation to exhibit naval-related ship models at the Club for a period ranging from one to three months. Members and guests are invited to visit the Club and check out the initial exhibit of the series on the first floor main lobby. The first exhibit is the WWII Light Cruiser, USS Atlanta (CL-51). The ship model builder is Vince McCullough and the model will be exhibited from January through March.’*

The USS Atlanta (CL-51) was the class lead of series of light cruisers that operated in the Pacific during World War II. Initially designed as a mixed-use cruiser (essentially a "super destroyer"), these vessels were equipped with both anti-submarine and anti-aircraft weapons. As the in the pacific progressed the anti-submarine role was reduced and later ships in the class focused on AA roles.

The Atlanta was laid down on 22 April 1940 at Kearny, N.J., by the Federal Shipbuilding and Drydock Co.; launched on 6 September 1941, sponsored by Mrs. John R. Marsh (better known by her pen name, Margaret Mitchell, the author of the novel *Gone With the Wind*), and commissioned at the New York Navy Yard on 24 December 1941. After her shakedown cruise, she was ordered to the Pacific, where she joined Vice Admiral William F. Halsey's Task Force (TF) 16, formed around the carriers Enterprise (CV-6) and Hornet (CV-8), where she supported the fleet at the Battle of Midway. Following the battle, she was reassigned operations in the Solomon Islands. Atlanta was heavily damaged by Japanese and friendly gunfire in a night surface action off Guadalcanal on 13 November 1942 during the Naval Battle of Guadalcanal. The cruiser was sunk on her captain's orders in the afternoon of the next day. Her sister ship, USS Juneau, was lost the next day, along with the five Sullivan brothers.



This resin kit has been extensively modified to reflect the ship as she appeared at the time of her sinking. Scratch built masts replaced those supplied with the kit. The masts were then detailed with lights, rigging, radio antennas. The SC-2 surface search radar on the forward mast is an after-market photoetch addition. The air search SK radar on the after mast is scratch built. Scratch built k-gun (explosive depth charge launchers) were added to the stern.

Several WSMS members have already expressed interest in having their models put on display. If you are also interested please contact Lou Husser by Email at [LBHusser@verizon.net](mailto:LBHusser@verizon.net) or by phone at 540 659-7088 for details. All models will be accompanied by cards identifying the models and their builders, and include information on the Washington Ship Model Society. The time length a model could be exhibited is flexible but for planning purposes the owner should anticipate about a month minimum.

## WANTED!!!!

*If you have a model of the USS Hartford, USS Olympia or USS Oregon to display,  
there are two great locations for you!*

-----

## **WSMS MEMBER'S SCUTTLEBUTT**

*A column where members can contribute most any notes or recommendations pertinent to ship modeling*

*Send comments to Lou Husser at [LBHusser@verizon.net](mailto:LBHusser@verizon.net)*



### **Vietnam War Riverine craft from GHQ**

Following is a link to 1/285 scale riverine warfare models

<http://www.ghqmodels.com/store/vietnam-war-micro-armor-riverine.html>

*Contributed by – Jack Ray*

### **WWII Identification Models Identified**

Two WWII identification models that were located on a book shelf at the Army Navy Club but were of unknown origin and unnamed were researched and identified by Vince for the club. He checked with our expert on recognition Models at the Naval Academy museum who told him that the model in the background is a Baltimore class cruiser, while the one in the foreground is a Brooklyn class cruiser. The catapults that were on the stern of the Brooklyn have been broken off (you can see the stubs if you look at the deck) and both are missing cranes for aircraft retrieval that would have been on the fantail.



*Contributed by – Vince McCullough*

### **Clockwork Battleship Scratch Built Model**

<http://www.modelboatmayhem.co.uk/forum/index.php?topic=45959.0>

Check this really cool model out. It's a scratch built, radio controlled, clockwork powered, German influenced, turn-of-the-century, toy boat replicas representing fantasy, pre-dreadnought, Danish Coastal Battleships. The website covers the building techniques and aesthetic goals of the modeler quite well!



*Contributed by – Jack Ray*

### **WSMS Member Assisting at Richmond IPMS Show**

This year, I will be helping out with the festivities at the show in support of IPMS Richmond Chapter *Steve Husser*

### **Great Site for Ship Pictures**

Somebody led me to this on Steel Navy. It is fabulous collection of ship pictures. They are in galleries by first letter of the name. You can look at them by thumbnail or if you click on one and open it there is a panel on the upper right that lets you page through them or start a slide show. The download button is in the lower right. I'm just running the slide show in the corner of my screen.

<http://www.photoship.co.uk>

*Contributed by – Bruce Buchner*

### **Nautical History Gallery & Museum**

Located at 1012 Pearl Street, La Jolla, CA specializes in handmade one of a kind history displays. The curator produces three dimensional displays of a structures, concepts or ideas based on his research of texts, drawings or photographs

Website - [www.nhgallery.org](http://www.nhgallery.org)

*Contributed by – Lou Husser*

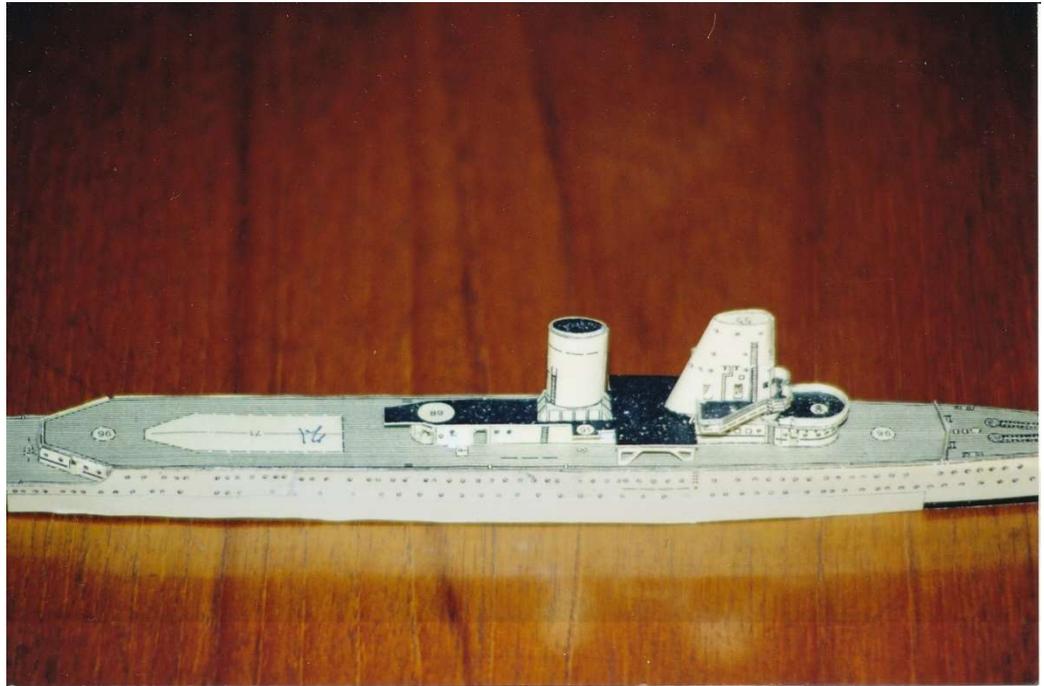
## MEMBER CONTRIBUTED ARTICLES

### Hints for Assembling Paper Models

*By Carl Erikson*

The de Ruyter was the first paper model kit I ever built. I reduced it to 1:600 scale and it was printed on a light-yellow card stock (maybe they did not have color copiers in those days?). I think it was about 15 years ago. I then painted it with Testers acrylic paint and a brush. Below is a work in progress which might be helpful. This was also before I started using PE railings. Ayyached as an addendum to the newsletter is a Polish to English dictionary of ship modeling terms. Why you might find this useful is that many of the ship models originate from Poland.

Hope this helps solve some mysteries,



MEMBER CONTRIBUTED ARTICLES

**“Oliver Cromwell”**  
***An American Revolutionary War Frigate***  
**Model built by Mr. Larry Valett**

The “Oliver Cromwell was an American frigate, 248 tons burthen , 24 guns, out of Philadelphia. She is believed to have originally been the “Juno”, a merchant ship. she was renamed and outfitted for privateering to serve the revolutionary cause. She set sail February 1777 with 150 men and captured 14 ships during her brief career. She herself was captured by HMS Beaver off the coast of St Lucia on May 19, 1777. She was refitted and consigned to the British fleet, thereafter known as "Beaver's Prize".

Mr Valett, a member of the Washington Ship Model Society, has been a model shipwright for over 30 years. He studied marine engineering at the California Maritime Academy and worked for the US Navy for several years. He is an avid scuba diver and student of marine archeology and maritime history. Mr. Valett is also a member of the Nautical Archeology Society and the Nautical Research Guild. He works in Washington DC , and is currently scratch building a set of three American Revolutionary privateers in 1:48 scale.



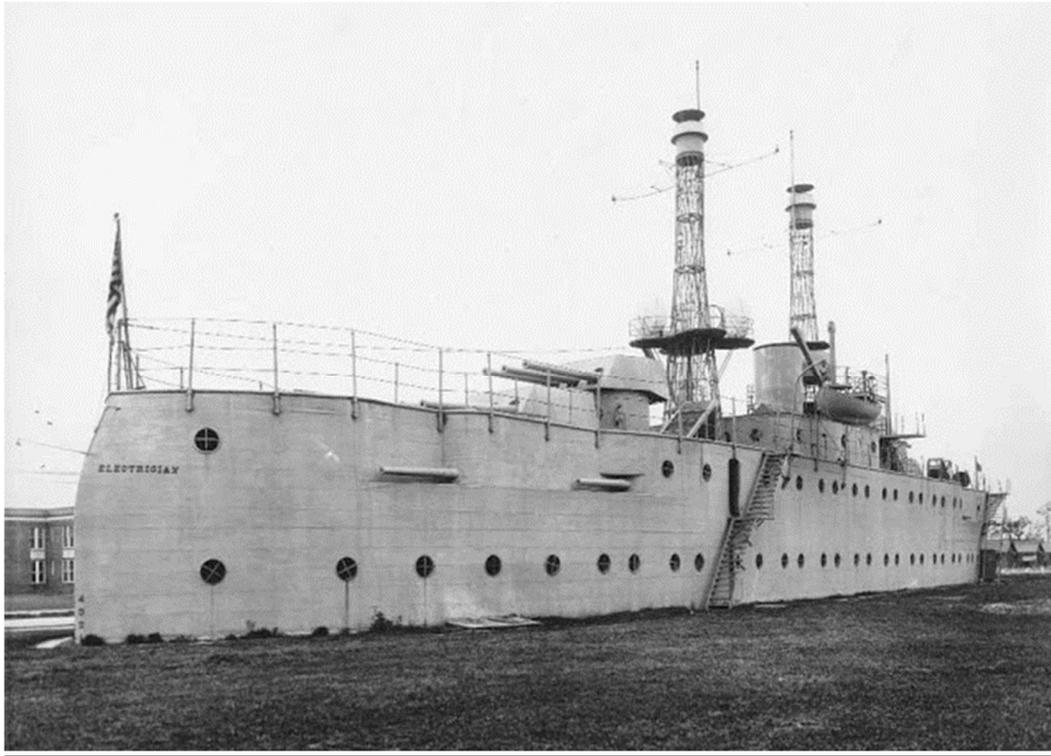
# THE LYNX

## WSMS PHOTOS

Peter Gutterman's recently restored yacht, "America"



## ANSWER TO NOVEMBER'S NAUTICAL MYSTERY SHIP



She is the USS Electrician, a building designed to have the appearance and all the electrical features of a modern battleship, represented a very modern method for training sailors nearly a century ago. Offering classroom and hands-on training, the students were able to simulate the same routine they would have on a real ship. Measuring 235 feet long with a 38-foot "beam," the ship was a  $\frac{3}{4}$ -scale model of a Pennsylvania-class battleship; and became an iconic feature of Naval Operating Base Hampton Roads (now Naval Station Norfolk).

**Congratulations to John Dutton who nailed the answer!**

## Classifieds *WANTED*

### THREE SHIP MODELS NEEDING REPAIRED

#### **1<sup>st</sup> model – Arab Dhow**

The repairs needed include reattaching the rudder and fixing the steering mechanism. A J-shaped brace for the lifeboat needs reattaching. And the anchor needs to be reconstructed and attached with a new anchor line or chain. Lastly, the rigging needs tightening. Overall measurements of the model are 44"x8".

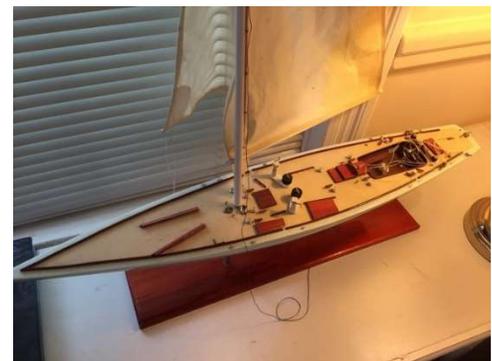


#### **2<sup>nd</sup> model – Coastal Schooner(?)**

The sails, which are furled on the booms, are rotten and need to be replaced, and all the rigging needs replacing. Also the tops of each mast have an odd flexible extension about 3" long that I'm not familiar with, so perhaps the mast will need some work as well. Finally I'd like your opinion if the entire model needs reprinting. Measurements are 33"x7".



**3<sup>rd</sup> model -** A 22" model of the 1962 Americas Cup winner Weatherly, or the British Endeavor. The mast is snapped off at the base, and it needs to be rigged from scratch.



---

#### *Instructions for potential model repairer*

If interested in taking on the repairs of 1 or more of the models please contact Lou Husser at [LBHusser@veizon.net](mailto:LBHusser@veizon.net) for email address of person seeking the repairs. Lou will email you their name and any additional photos of the models

---

---

#### *Newsletter Ad Policy*

Members may submit as many ads as they choose for printing in the Lynx. They may be either want or for sale ads and should normally be limited to a 100 or less words. Non-members may also submit one ad to a monthly newsletter

## **Regional Modeling Related Events**

**AMA Expo East:** The Academy of Model Aeronautics (AMA), in cooperation with the Westchester Radio Aero Modelers (WRAM) announced it will continue the long-standing tradition of hosting an annual East Coast hobby trade show, which **will be held February 24–26, 2017**, at the Meadowlands Exposition Center in Secaucus, New Jersey.

**Tom Freeman: Illuminating the Past Exhibition:** The National Museum of the United States Navy presents the works of naval artist, Tom Freeman. The exhibition features a selection nearly 30 paintings depicting the story of the U.S. Navy from its inception to present day. The exhibition is on **now through December 12, 2016** in the museum's temporary art gallery located at the Washington Navy Yard at 805 Kidder Breesse Street, SE. The museum is free and open to the public.

*For the Mutual Benefit in Model Ship Building; for the Exchange of Ideas; and to Preserve for Posterity Scale Models of Historic Vessels,  
we Associate Ourselves Together to Form This Washington Ship Model Society*

## Polish to English Paper Modeling Terms

aby	in order to, in order that, only to, to, that
aerodynamicznego	aerodynamics, aerodynamically
albo	or, else
armata	cannon, gun
badz	at any rate, either, or
bardzo	very, very much, a great deal
bedzie	at any rate, either, or
bez	without
boczna	lateral, side
boczny	lateral, side
bok	side, flank
boku	side, flank
bombenie	bomb
bombowego	bomb
bombowej	bomb
bomby	bomb
brzechwa ogonowa	tail fin
budowa	construction, structure, framework
budowany	construction, structure, framework
budowie	make, build, setup
budowy	component
byc	be, exist, live
byl	in order to, so as to
byly	former, one time, old
cala	as a whole
calego	the whole length
calej	completely, totally
calosc	whole, complete body
calose	totally, entirely
caly	whole, all, entire
celownikiem	gun sight
charakterystycznym	characteristic
ciężar	weight
cz	parts
czarno	blackly, in black
czesc	part, section, piece
czesci	part, section, place
czesci	parts
czesciach	honor, respect
czesciami	piece meal
czola	to work hard
czynnoscia	function, activity
daje	siezes, gives
dalsze	further, later, outlying, another
danej	moreover, further off, later, further back
danych	in question, spared, given
decyd	decide, resolve
decydujemy	decide, resolve
dla	for, to, towards
dlugo	long before, a long time, a long way
dlugosci	length

---

dluz	longer
do	to, into, up, till
dobrze	rightly, properly
dokladne	accurate, exact, precise
dokleic	glue to, stick on
doklejamy	assemble/glue to
dopasowanie	fit, adapt, adjust, match
dopasowaniu	fit, adapt, adjust, match
dopiero	only, just, barely, hardly, not till
dosyc	enough, plenty, sufficient
dotyczy	regards, affects, bears
dotyczyc	concern, relate, regard, refer
drewna	piece of wood
drewno	piece of wood, timber, log
drobne	small change
drobny	small, tiny, trivial, slight
drobnych	small, tiny, trivial, slight
drobnym	small, tiny, trivial, slight
drut	wire
drutow	wire
drutu	wire
duzy	big, large, great, fair-sized
dwoch	of two kinds
dysze	nozzle, blast pipe, snout
dzialo	cannon, gun
dziob statku	proW, bow
dzwigara	struts
elemencie	component
element	component
elementach	component
elementarny	fundamental, primary
elementem	component
elementow	component
elementow	component
elementy	component
etap	stage of development, halting place
etapem	stage of development
etapie	at this stage
ewentualnie	if need be, possibly
ewentualny	possible, eventual, potential
folia	foil
formujemy	mold, shape
fotelami	pilot seat
fotelem	pilot seat
fragmenty	fragment, scrap
gdyz	for, because
gdzie	elsewhere, somewhere else
glebokosci	depth, profundity, keenness
glowne	principal, main
glownego	main, predominant
go	him
golen podwozia	undercarriage leg
goleni	shave
gora	top
gore	uphill, to rise, to climb
gorna	upper, upside
gorny	upper
grubosci	thickness, size

---

hak	hook, clamp, clasp
hamulca	restraint, brake
i	and, also, too
ich	there in, there on, this, it, them, thiers
identycznie	identical, similar
inne	other, different, another
inny	other, different, another
jak	how, as, if, then
jakie	what, which
jako	as, by way of
jednak	however, yet, still, but, after all, though
jednakowy	even, equal, alike
jednocześnie	simultaneously, also
jego	thereof, its, his, him, of its, himself
jest	is, is not
jezeli	if
kabina pilota	cockpit
kabiny	cockpit
kadlub	fuselage, framework, hull
kadluba	fuselage, framework, hull
karton	cardboard
kat	corner, angle
katem	at an angle
katy	corner, angle
kawal	piece
kawalek	bit, morsel, scrap, chunk
kawalka	piece, piles, sheets, scraps, bits
kazdej	each, respective
kazdy	every, each, respective, any
kazdym	every, each, respective, any
kierunku	direction, course, set
kilka	a few, some
kleic	glue
klej	glue, gluing, cement
klejem	glue, gluing, cement
klejenia	glue, gluing, cement
kleju	glue, gluing, cement
klock	block, chunk
klocka	block, chunk
kokpit	cockpit
kola	to knock, to bang, to rattle
kolejno	one after the other, in turns, by turn
kolejnosci	sequence, order
kolejny	next, successive, following
kolejnych	next, successive, serial
kolka	ring(let)
kolo	wheel
komora	chamber
komory	buckets
komorze	chamber
koncowka skrzydla	wing tip
konstrukcji	construction
korzystamy	to profit, to take advantage
kotwica	anchor
krawedz	edge
krawedzi	edge, ribs
krawedzie	edge, margin, border
krzywizny	curve

---

kształt	form, shape, configuration, figure
kształtem	form, shape
ktora	which
ktore	which, any, whichever
ktory	any, whichever
ktory	any, whichever
ktorych	on which, any, whichever
ktorym	on which
kwadratowej	square
l.	(abbr) left
laczenia	union, junction, merger, splice
ladowania	to land, to alight
lakier	varnish
lakierem	varnish
latwiejszy	easier
lepszego	better, improved
lepszey	better, improved
lewa	left
liczba	number, figure, integer, class
liczbie	numerical, numerically
linia	fine line
liniach	ruler, line
linie	to draw a line
linii	in a straight line
listewki	trim, slats, cleats
litera	letter
lotka	aileron
lotniczych	air plane, air base, air
lub	or
lufa dziala	gun barrel
luku	hold
luzno	loose, unconnectly, loosely
luzny	loose
maksymalna	maximum, top, peak-most
maszt	mast
maszyna	engine
materialow	material
mechanizm	mechanism, gear, device
mechanizmu	mechanism, gear, device
metalowe	metallic
metalowy	metallic
metoda	method
mial	dust, powder
miedzy	between, among
miejsce	place, location, spot
miejscu	place, location, spot
miekki	soft, supple
miekkiego	soft, limp
mocna	strong
mocnego	strong
mocno	tight, firm, strong
mocny	strong
mocowania	fastening, clamping, steadying
mocujemy	mount
model	model
modelina	model
modelu	model
montaz	assembling

---

montazowy	assembly
montazu	assembling
montowac	install, put together
montowanym	assemble, put together
moze	perhaps, maybe
mozemy	perhaps, maybe
mozna	it is possible, one may, one can
musi	to have to, to be compelled to, to be forced
musimy	shall, must
musza	shall, must
na	on, for, by
nadbudowa	superstructure
nadbudowka	superstructure
nadmiar	excess
najlepszym	best possible
najpierw	first of all, in the first place, at first
najwieksze	biggest, largest, extreme
naklejamy	glue
nalezy	rightful, proper
narysowanych	to draw, to trace, to give a picture
nasada skrzydla	wing root
nastepna	next, succeeding
nastepnie	next, then, subsequently, succeeding, sequential
nastepnych	next, following
nastepnym	next, the next, the following
nastepujace	the successive, the following, the next
nic	none, nill, nothing
nic	thread
nicktorych	nothing, it does not matter
nie	no, not
niektore	some
niektory	some
niektorych	now and then
nieruchomej	moveably
nieruchomy	motionless, without motion
niewielkim	small, little, unimportant
niezaleznie	independent self contained, self sufficient
nosa	nose
o	of, for, at, by, about
obciazenie	load, weight
obciazeniem	burdened, weighed
obcinac	cut off, clip, crop
obcinamy	cut off, clip, crop
obie	both of, the pair of
obracac	turn over, rotate, crank
obracaja	turn over, rotate
obracajacym	turn over, rotate
obracal	turn over, rotate
obracaly	revolving, rotating, swevel
obracanym	rotation
obrotowe	by rotary motion
obrotowy	rotary, revolving
obrotowych	rotary, revolving
obrotu	rotary, revolving
obrys	contour
obwodowy	circumfrential
obwodzie	circumfrence
obydwa	both

---

obydwaj	both
od	from, for, with
odblask	reflection of light, gleam
odblaskosa	gleam, light reflection
odchylenia	deviation, declination, variation
odciac	withdraw, retract, pull away
odcinac	cut off, sever
odcinanym	cut off, sever
odnosnie	concerning, in comparison
odpowiadac	answer to, correspond to
odpowiadaly	answer to, correspond to
odpowiedni	respective, suitable, specific
odpowiednich	adequate preparation
odpowiednie	suitable, proper, properly fitting
odpowiedniego	suitable, proper, properly fitting
odpowiedniej	belong
odpowiednim	respective, suitable
odpowiednio	properly, appropriately
ogolne	in general, generally
ogolnych	generally, general, universal
ogolych	general, universal
ograniczenia	limited
oklejamy	glue
okolo	near, about, more or less, on
oparta	built, based on progress of, based
oparty	leaning, resting, reclining
opis	description
opisem	description, to describe
opisie	description, to describe
oporem	with difficulty
oporow	resisting, resistance
opracowany	work up, elaborate, compile, wrought
oproc	except, apart
oraz	as well as
oslona	guard, protection
oslona kabiny	cockpit canopy
oslony	barriers, wings, covers
ostatecznie	finally, after all, at last
ostatni	last, late, end, closing
ostatnia	last, late, end, closing
ostroznie	careful, cautious
otwarta	open, opening
otwartej	open
otwarty	open
otwor	opening, piece
otworow	opening, hole
otworow	opening, hole
otwory	opening, hole
owiewka	faring
owiewka	faring
owiewke	faring
owiewki	faring
oznaczaja	signify, denote
oznacza	signify, denote
oznaczac	signify, denote
oznaczenie	signify, denote
oznaczone	signify, denote
oznaczonych	denoted, lettered

p.	(abbr) right
papier	paper
papierze	paper
partz	parts
paski	bars, belts, bands
pasowania	to adjust, to paint
pelnego	full, fill
pewny	sure, secure
pierwszej	first, at first
pionowy	vertical, upright, plumb
planu	plan
plaska	flat
plaski	flat
plat	slice, lobe, cut
plat	aerofoil
plata	slice, cut, lobe
platy	lobes, joints
po	after, next, about
pod	under
podane	application
podklejeniu	to paste, reenforce with paper
podobny	similar, like
podstawa	base, basis, rest, footing, mount
podstawic	substitute, put under, push to
podstawie	substitute, put under, push to
podwojnych	double
podwozia	undercarriage, chassis
podwozie	undercarriage
podwoziem	undercarriage, landing gear
podzespól podwozia	undercarriage
pokazują	display, displaying
pokład	deck
pokładowka	deck house
pokrycie	cover
pokrywa	lid
pokrywac	cover
pokrywe	lid
pokrywy	envelopes
pol	one half
pola	field, area
polaczeniu	connection, linkage, contact
pole	area, pole
polmilimetrowe	one half milimeter
polozenie	position, situation, site
pomalowanie	to paint, to color
pomoca	to help, assist, save
poszczegolny	individual
poszczegolnych	individual, several, respective
poszycia	to plate, to skin
poszycie	to thatch, to plate, skin
poszyciem	to plate, to skin
powierzchni	surface, plane, area
powietrza	air
powinna	should be made
poziome	level
poziomego	level, plumb line
poziomu	leveling
pozniej	later on, afterwards

---

pozostale	other
pozostale	other
pozycja	position, item, place
pozycji	position, item, place
pracochlonne	labor-consuming
pracochlonnych	labor-consuming
prawa	right
prawidlowego	regular, correct, proper
problemow	problem
profilujemy	formed into shape
prosta	straight, right, upright
prostej	upright, straight, plumb
prosto	straight, right, upright
prosty	straight, direct, simple
przecinac	cut
przed	before, previous to
przednie	leading, front, forward
przedniego	front, foremost, headmost
przednim	front, leading, high-quality
przeгляд	review, inspection
przeглядzie	review, revisions
przestrzegamy	caution
przestrzeni	caution, within the range of
przestrzenie	caution, warning
przesuwac	move, shift, shove, transfer
przesuwamy	moved, displaced
przez	across, through, on the other side
przezroczyste	transparent
przod	front, ahead
przodu	front, ahead
przy	at, close
przycinamy	cut off, shorten, trim, clip
przydatny	usefull, helpfull
przykleic	glue, attach
przyklejamy	glue, attach
przyklejania	glue, attach
przyklejaniu	glue, attach
przylaczyc	attach
przylegac	fit, adhere, continious
przylegania	fit, adhere, continious
pylony	pylons
rakiety	rockets
razem	together
rowek	channel, groove
rowniez	also, too, likewise, as well
rownolegle	parallel to
rozpietosc	span, spread, range, stretch
rozsuwac	draw apart, spread, seperate
rozsuwamy	draw apart, spread, seperate
rozwiązaniem	solution, execution
ruchomej	move, moving, flexible
ruchomy	move, moving, flexible
ruchowymi	move, moving, flexable
rufa	stern
rukka	small pipe
rukki	pipe, tube
ruruche	pipe, tube
rys.	(abbr) diagram, illustration

---

rysunkow	diagram, picture
rzutowalo	projecting, projectively
rzutowe	projecting, projectively
sa	are not, they are, are
sam	alone, one-self
same	alone, themselves, ourselves, yourselves
samolot	aeroplane
samolotu	aeroplane
sasiad	neighbor
sasiaddujace	adjoining, bordering
sasiadujacych	adjoining, adjacent, bordering
sciac	bulkheads
scianch	remove, cut-out
scianka	bulkheads
scianke	bulkhead
scianke	bulkheads
scianki	bulkhead
sciernym	abrasive
segment	segment
segmentow	segment
segmentu	segment
segmenty	segment
sie	yourself
silnik	engine
silnikow	engine
skala	scale, extent
skali	scale, extent
skleic	glue together
sklejac	glue (verb)
sklejamy	glue together
sklejamy	glue together
sklejania	glue together
sklejeka	glue together
sklejeniem	glue together
sklejeniem	glue together
sklejeniu	glue together
skrzydel	wings
skrzydla	wing, wings
skrzydlem	wing, wings
skrzydlo	wing
sluza	serves
sluzy	serves
smiglo	airplane propeller
soba	oneself, ourself
spoine	weld, junction, joint
sposob	means, way, fashion, method
srednica	diameter, bore
srednice	diameter, bore
srodek	middle, center
srodka	middle, center
srodkowy	central, middle
sruba napedowa	ship propeller
stala	constant
stale	constant, ongoing
staranne	careful, accurate, exact
statecznik poziomy	tail plane
ster	rudder
stopni	ledges, degrees

---

stos	pile, stack
styku	contact, but
sucho	uninterestingly
symetrii	symmetry
symetryczne	symmetric, symetrical
szablony	stencil, pattern
szczegolna	point, detail, in particular
szczegolnie	in particular
szczegolnosci	peculiarity, singulary
szczegolowe	detailed, minute
szczeline	slot, crevice, slit
szczeliny	slots, crevices
szkieletu	framework
szpachla	putty knife
szpachlowka	filler, putty
szpilka	pin
szukacz	searchlight
szycie	sewing
szyciem	sewing
taczenia	screen, acreens
tak	thus, as, like this, so
taka	such
taki	such
takze	likewise
te	those, these, the
tego	this, that
tej	that
tektura	cardboard
tekture	cardboard
tektury	cardboard
ten	this, this one
teraz	now
tez	also, likewise
to	it, this
tradycyjnie	traditional
trudniejszy	more difficult
trwala	durable, tenacious, persistent, permanent
trwaly	durable
trzeba	ought to, one should, it is necessary
twarda	hard
twardy	hard
tworzyc	create, form, make
tych	those, these
tylko	only, but, just
tylna	rear
tym	so much better
uformowac	formed
uformowania	formed, formfitting
uformowanie	formfitting
ustawiac	arrange, place
ustawiamy	arrange, setup
usterzenie poziome	tail plane
usterzenie wysokosci	tail plane
utrzymywac	support, contend, keep, hold
uwag	attention
uwaga	attention
uwaga	remarks, comments
uwage	remarks, comments

---

uwagi	remarks, comments
uwzględnieniem	allowance for, compliance with, regard to
uzbrojenia	weapons
uzbrojeniem	weapons
uzyskac	to receive, to obtain, to get, acquire
uzyskamy	obtain
w	into, at
w.	(abbr) frame, former, rib
wariancie	variance
wariant	variant
warstwe	layers, tiers, coats
wciecie	incision, notch, dent, indention
we	in
według	according to
wedziach	bit, bits
wewnętrzna	inner, internal, inward
wewnętrznych	internally, internal, inward
widok	view, scene, show, picture
większej	bigger, larger, greater
wiekszy	bigger, larger, greater
wielkosc	size, dimension
wielkosc	dimensions, quantities, magnitudes
wkladac	put in
wkladamy	put in
wklejamy	paste
wklejenia	paste
wloty	inlets, inflows
wlozenie	put in, put on
wlozyc	put in, put on,
wnek	niche, recess
wneka	niche, recess
wneke	niche, recess
wneki	niche, recess
wnetrze	interior
wowczas	then, that time, at the time
wraz	together
wreg	frame, former, rib
wreg	frame, former, rib
wregach	frame, former, rib
wregami	frame, former, rib
wregi	frame, former, rib
wskazuje	indicates, hints
wszystek	whole
wszystkich	of all
wszystkie	all
wszystkimi	to everybody, to all of them
wtedy	then
wycinac	cut out
wycinamy	cut out
wydech	exhaust
wygladzenie	apperance
wyjmujemy	remove, cut out
wyjmwoac	remove, take out
wykonac	do, perform
wykonanie	execution, realization, workmanship
wykonaniu	execution, realization, workmanship
wykonywania	perform, exercize, practice
wylot	nozzle, exhaust, exit

wylotowe	nozzle, exhaust, exit
wymieniac	exchange, replace
wymiennego	alternatively, exchangably
wymiennym	exchange, replace, measurably
wynosi	account for
wynosic	carry out, elevate
wypelnienie	filler
wyposazenia	equipment, outfit
wyschnac	dry up
wyschnieciu	dry, withered
wystajacy	prominent, outstanding
wystawalo	protrude
wytrzymalosci	endurance, stability, strength
wyznaczac	mark out, point out
wyznaczajace	mark out, appoint, assign
wzajemne	mutual, reciprocal
wzajemnego	mutual, reciprocal
wzajemnie	mutual, reciprocal
wzajemny	mutual, reciprocal
wzdłuż	along
względem	to, towards
wzorow	perfect
wzorowy	perfect
z	to set to, save, retain, maintain
zachowanie	behavior, maintenance, retention, manners
zachowujemy	retains, preserves, maintains
zakrzywiac	curve, bend
zamocowac	attach, fasten
zamocowania	attach, fasten
zamocowanie	attach, fasten
zamykac	close, shut, conclude
zamykamy	close, shut, confine, close quarters
zapoznac	acquaint
zasada	principle, rule, law
zasade	principle, rule, law
zawartosc	contents
zawartych	contents
zaznaczone	asterisked
zaznaczonych	stenciled, marked, high lighted
zbiornik skrzydlowy	wing tank
ze	that, then
ze	with, on, by, alone with
zebra	ribs
zeszlifowac	grind off
zewnetrzna	outer
zginac	bend
zlozenie	assemblage, rendering
znaczonego	marked, earmarked
znajdowa'c	find, meet, experience
znajdowala	find, meet, experience
znajduje	finds
znak	mark, sign
znakami	mark, sign
zostal	were, was
zostawic	leave, abandon, put aside
zwichrowan	unbalanced
zwichrowania	unbalanced
zwijac	roll up, coil, furl

zwijsane  
zwracac  
zwrócic

roll up, curl, furl  
return, give back, pay attention  
vacate, return, pay attention o