

Seattle Chapter News

Seattle Chapter IPMS/USA August 2021



Painting in Layers, Like Singing a Song. Something New

Greetings fellow modeling enthusiasts! The time has finally come for us to meet again, in person, after all we have been through. This all seems surreal – the last time we were together I think I brought in a 1/32nd scale Lancaster. That build was 24 models ago.

Our meeting will be a little unusual. I am writing this editorial eight days beforehand, and as of today the meeting will require masks, and 'vaccinations will be preferred'. We have also paid for both large rooms to meet, to allow a little spreading out – the space will accommodate 100 while staying in compliance with current Covid protocols.

That's how things are set up today – who knows what the next eight days will bring in the news, but I am hoping that we are still on come August 14! One reason for that is that I have a bunch of



door prizes, enough for everyone, that are taking up room in my house and they have to go! I am hoping that all of you will join us for this first meeting in a long time.

On to modeling! Thomas Jefferson was a big believer in luck...he said that he found 'he had more luck the harder he worked at something'. Big surprise there. I recently came across yet another online modeler who is doing things differently, and his methodical approach certainly takes a lot more work. In the end, however, his finish has little to do with luck, and a lot more to do with learned technique. And I think the results are worth it.

He goes by the name of Suji-san, and he paints in layers, moving from dark to light, protecting each layer before moving on. I tried his technique on a Tamiya PzKpfw IVF1 and, in doing so, transformed my entire approach to finishing a model. The style can be used on any type of model, but he focuses mainly on armor and sci-fi. The depth of the model surface, when finished, is breathtaking. And for once (for me), doesn't depend on sheer, un-reproducible, luck.

In a nut-shell, the process flows like a song – verses and choruses, over and over. You start with a very dark surface (the first verse). With the Mark IV, this means black outlining filled in with German Grey. Then comes the 'chorus' – a layer of clear gloss (to protect what's been done), followed by a layer of AK Worn Effects. Next comes the second 'verse' - a very light layer of Tamiya JN Grey. Once dry, you 'disturb' the surfaces with a stiff paint brush and water. This is not chipping – this is simply pushing and pulling off a little paint here and there, exposing the darker layers underneath.

Once dry, you repeat the chorus (clear gloss and Worn Effects) and you are on to the next verse, a light layer of Tamiya JA Grey (a slightly lighter color), and subsequent scrubbing. Repeat the chorus, followed by a final verse, a light layer of Tamiya Gloss White, and scrubbing. With each layer, something miraculous unfolds – the surface still appears German Grey, but is much more complicated in depth, like the steel surface of the real thing.

In most respects, Suji-san's approach is a lot like any other armor finishing, except that he has expanded my old '15 Steps' into a whopping 31! You can find his work on YouTube for a better explanation than what I can do in print. I heartedly suggest that you give it a whirl! *[See page 21 for another photo - ED]*

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SEATTLE CHAPTER CONTACTS

President:	Vice President:	Treasurer:	Show Chair:
Eric Christianson	Terry Moore	Fuzhou Hu	David Dodge
10014 124th Ave NE	7014 Lake Grove St. SW	19012 3rd Dr SE	
Kirkland, WA 98033	Lakewood, WA 98499	Bothell, WA 98012	
Ph: 425-591-7385		Ph: 412-215-7417	Ph: 425-825-8529
ModelerEric@comcast.ne	et terryandjill@comcast.net	fhu.ipms@gmail.com	ddodge@nwlink.com

IPMS Seattle Web Site (Web Co-Ordinator, John Kaylor): http://www.ipms-seattle.org

Public Disclaimers, Information, and Appeals for Help

This is the official publication of the Seattle Chapter, IPMS-USA. As such, it serves as the voice for our Chapter, and depends largely upon the generous contributions of our members for articles, comments, club news, and anything else involving plastic scale modeling and associated subjects. Our meetings are generally held on the second Saturday of each month, (see below for actual meeting dates), at the **North Bellevue Community/Senior Center, 4063-148th Ave NE**, in Bellevue. See the back page for a map. Our meetings begin at 10:30 AM, except as noted, and usually last for two to three hours. Our meetings are very informal, and are open to any interested modeler, regardless of interests. Modelers are encouraged to bring their models to the meetings. Subscriptions to the newsletter are included with the Chapter dues. We also highly recommend our members join and support IPMS-USA, the national organization. See below for form. Any of the members listed above will gladly assist you with further information about the Chapter or Society.

The views and opinions expressed in this newsletter are those of the individual writers, and do not constitute the official position of the Chapter or IPMS-USA. You are encouraged to submit any material for this newsletter to the editor. He will gladly work with you and see that your material is put into print and included in the newsletter, no matter your level of writing experience or computer expertise. The newsletter is currently being edited using a PC, and PageMaker 6.5. We are in the process of transitioning to InDesign. Any Word, WordPerfect, or text document for the PC would be suitable for publication. Please do not embed photos or graphics in the text file. Photos and graphics should be submitted as single, separate files. Articles can also be submitted via e-mail, to the editor's address above. Deadline for submission of articles is generally twelve days prior to the next meeting - earlier would be appreciated! Please call me at 425-885-3671 if you have any questions.

If you use or reprint the material contained in the newsletter, we would appreciate attribution both to the author and the source document. Our newsletter is prepared with one thing in mind; this is information for our members, and all fellow modelers, and is prepared and printed in the newsletter in order to expand the skills and knowledge of those fellow modelers.

Upcoming Meeting Dates

The IPMS Seattle 2021 meeting schedule is as follows. All meetings are on Saturdays from **10:30 AM** to **1:30 PM**, except as indicated. To avoid conflicts with other groups using our meeting facility, we must **NOT** be in the building before our scheduled start times, and **MUST** be finished and have the room restored to its proper layout by our scheduled finish time. We suggest that you keep this information in a readily accessable place.

August 14
October 9

IPMS/USA MEMBERSHIP FORM

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September 11 further details to follow

Newsletter Editor: Robert Allen 7919 133rd Ave. NE Redmond, WA, 98052 425-885-3671 baclightning@yahoo.com

A Pollywog's Guide to Ship Modeling: Tips, Tricks, and Hacks for the New Scale Shipbuilder

text and photos by Tim Nelson



I've admired ship models and ship modelers for a very long time. Let's face it - no model in a display case has the gravitas of a fine ship model. Having studied excellent (and some rough) ship models at the IPMS/USA Nationals and local shows in the Pacific Northwest for many years, my nautical stash kept slowly growing. Fear of tragedy held me back, but the pandemic was what I needed to get off the schneid and try one – actually two. The Revell 1/700 *Colombo Express* was an ideal subject and kit for my first adult ship build in the fall of 2020, and the Trumpeter 1/700 *USS Tennessee* (BB-43) was a suitable challenge after that in the spring of 2021. https://modelpaintsol.com/builds/revell-700-colombo-express-05241-tim-nelson



A couple of ship models under my belt does not make me an expert, however, I've eliminated most of the fear and mystery from the genre and am now willing to take on some other longcherished subjects. My goal here is to point the aspiring novice ship modeler to some great resources, and to highlight tools and techniques I found particularly useful in these builds.

(Caveat: I don't address waterline ships on an at-sea base, nor sailing ships, neither of which have I yet attempted.) These are not quick weekend builds, and you need a mindset that derives enjoyment from the process, not just the end result. There is no substitute for just putting your head down, casting away the lines, and shoving off.

By the way, in nautical parlance, a "pollywog" is sailor who has not crossed the Equator. Such a situation is indicative of a neophyte without much experience on the high seas. I hope this material will motivate the novice ship modeler to "cross the Equator" and earn "shellback" status from King Neptune.

This article is a broad and shallow overview, and the budding ship modeler will want to consult other sources for a deep dive. I usually stick a list of references on the stern of an article, but it will be useful here to post them on the bow for emphasis. There are many great ship modeling resources out there, but I found these publications to be especially helpful:

1) Building & Detailing Scale Model Ships, Mike Ashey, Kalmbach Books, 1996.

One of the classic publications on all aspects of modern ship modeling. Some of the example models and materials used are a bit dated, but most of the techniques and approach are still very useful. A later condensed version (which I don't possess) is *Basics of Ship Modeling: The Illustrated Guide*, also published by Kalmbach. Both of these titles appear to be out of print but they can easily be found second hand, and PDF versions are actually available direct from Mr. Ashey. Mike also does very helpful seminars at the IPMS/ USA National Convention on a regular basis. http://www.mikeashey.com/Mike-Ashey-original-scale-modeling-books.htm

2) *Building the U.S. Navy's Classic Ships*, Finescale Modeler, FSM Direct – Downloadable Articles. If you can't find Ref 1 above, this PDF download conveys many of the basic techniques, and features Mr. Ashey on a couple of articles. Again, late 1990's vintage but helpful. **https://kalmbachhobbystore.com/product/digital-download/fspdf005**

3) Build Better Ship Models, FineScale Modeler Special 2019, Kalmbach Media.

A compendium of several articles on many aspects of ship modeling, with step-by-step build guides of several kits in a variety of media. A very handy modern supplement to Reference 1 above. https://kalmbachhobbystore.com/product/special-issue/vt-fs15190601-c

4) "Detailing and Finishing Warships", Chuck Bauer, FineScale Modeler, April 2021

This article focusing on model ship photo-etch techniques is incredibly useful in tackling the most common issues involving photoetch (PE) sub-assembly construction, complicated railing installations, and long railing runs. https://kalmbachhobbystore.com/product/ back-issue/fsm210401-c

If you are motivated to build ships, I highly recommend getting your hands on the above publications.

Tools and materials: The accompanying photo shows most tools that I found to be of high value in my first ship modeling sorties. Most of these are likely in your arsenal already, but if not, consider acquiring them. Not shown is a standard magnification aid such as the Opti-Visor, but that will be critical in doing much of the necessary detail work. Also not shown are commonly used tools such as a #11 hobby knife.



A. Needle-tip pliers; for handling tiny parts

B. Plastic-tip (no mar) pliers; for occasional handling of delicate, finished parts

C. Broad flat tip pliers (intended for decals I believe); very handy for flattening of small PE parts

D. God Hand pliers; great for general purpose handling of small parts and PE, especially while deburring PE. Also suitable for some PE folding. A very well-made tool.

E. Tamiya Bending Pliers (large); for PE manipulation. The triangular cross section of the jaws is very useful for making small folds.

- F. Tamiya Bending Pliers (small); (same as E, but smaller)
- G Firm foam rubber; for bending PE rails to desired radius

H. Micro swab, paint brush, etc.; used with foam rubber as a mandrel for small radius PE bending. Use whatever size is appropriate for the radius you need.

I. Looper 2 CA glue applicator (for thin CA glue); my go-to device for applying thin CA glue (the hand-made handle was purchased from a vendor at the IPMS/USA Nationals; nice but whatever handle you prefer works fine)

J. God Hand flat nippers; for small part sprue removal, cutting off secured rigging excess, trimming PE, etc. A very well-made tool.K. Mini-Scissors; for miscellaneous cutting tasks where precision is needed and/or access is tight.

More handy tools for ship modeling include a pair of dividers (for transferring measurements), and a curved #10 blade – the latter is my favorite device, used on a simple masking tape surface, for removing PE parts from their frets. A steel fine-tipped awl or suitable chucked needle is advantageous to start holes for later rigging, and of course a good small drill or pin vise to actually drill them with miniature bits (sizes 75-80 are the sweet spot).



In the larger scales (1/350 and bigger), a desktop PE folding jig may be a significant benefit. I have an old Mission Models Etchmate 3C that I've barely used in favor of items D, E, F above.

A good ol' black Sharpie is convenient to quickly suggest barrel openings on the dozens of smaller guns on a warship.

As for materials, most of your standard arsenal of solvent cements, CA glues (thin & gap-filling), etc. will be applicable. White glues (I prefer Gator's Grip) will come in very handy for certain PE and small part installation tasks, discussed below. Rigging line (I prefer the stuff made by Uschi) will also be needed. A sorting bin for cleaning up and separating parts will be very handy – I sort parts by the section of the ship it will eventually go on.



As in most modeling genres, ships come in a variety of scales. And similarly, deciding on scale is a matter of kit availability, compatibility with your collection(s), cost, display space, and simple personal preference. The most common ship scales are 1/350 and 1/700, and the techniques are basically the same. Everything in life is a trade-off: detail parts are easier to see and manipulate in larger scale, but more detail is required for realistic appearance and mistakes are harder to hide. Model ship kits come in injected styrene as well as resin – as with most modeling efforts, you generally want to get the best kit available of the subject you want to build. In the early 2020s, we have a staggering variety of ship kits to choose from.

Studying references of your prototype is invaluable to plan and refine your build. Many ships had long lives at sea and many refits, so the appearance of the vessel may change, sometimes dramatically, over time. It's also very beneficial to understand the function of the various deck equipment you're modeling – what a gizmo does affects how it is installed, how it is oriented, how it is weathered, etc.

We won't rehash the basics of parts preparation and cleanup here, much of which is common to other modeling genres. Ship modeling is a real exercise in project management: thinking ahead, identifying predecessor and successor events, and trying to proactively anticipate bug-a-boos. More than any other form of modeling, tackling a ship model as a series of sub-assemblies is the most rewarding approach. The ideal build sequence often differs from the kit instructions, but is generally inside to out and bottom to top. Thinking through things like the following will help you avoid traps later:

- How the sub-assemblies fit together and install
- What details (kit or aftermarket) will be added, and when
- What rigging is appropriate and making associated provisions (holes, posts, etc.)
- Where and when PE items and railing will be installed
- The phases of paint application
- What degree of weathering will be applied

Let's start to address some specifics...

Hull, deck, superstructure considerations: Full hull vs. waterline is an early, fundamental decision – I have no experience yet with waterline builds so full hull is the focus here. If your hull has an upper half and a lower half, test fit to judge the quality of the join. It can be extremely convenient to have access to the undersides of decks during later build steps such as rigging, at the cost of a possible waterline seam. (The reality is that most ship hulls, especially older warships, are covered with welds and irregularities, so don't overdo surface prep of the hull.)

This is also the time to ponder how you want to display the ship, and whether you will need to penetrate the bottom of the hull for mounting rods. Look at ship models in the References and at shows for great ideas – remembering simple is usually best. It can be very handy to use the base to immobilize the model during some of the steps below – consider preparing your base and temporarily integrating the ship onto it early on. Also consider internal baffles to block potential sightlines through the ship where there should be none.



Early on in your build is the time to identify items to "crispen" with a finer level of detail. Near the top of this list will almost always be molded-in anchor chains – they never look good and are impossible to cleanly paint. Best to gently scrape or otherwise abrade these off early (being careful not to mar surrounding detail). Now is also the time to consider provisions for real anchor chain to come later, like drilling out hawse pipes (where the chain passes through to the anchor(s)), as well as the other ("bitter") end where the chain emerges from below deck. On some vessels, no chain may be visible, in which case you saved yourself some travail. Other common items needing clean-up are screws (propellers) and associated shafts – tidy up and thin the screw blades, and replace styrene shafts with brass rod for a neater, crisper look. Superstructures and other elements which build up on the deck

will generally have components that need to be installed and painted early on, due to inaccessibility later – think through these aspects now, make notes, get and stay organized.

Test fit assemblies early on to ensure they'll easily install later on, and take into account the effect of paint layers on fine tolerances. You'll be glad you did – running into a late fit problem with PE parts installed all over is pretty stressful.



Special aftermarket items: There is a plethora of aftermarket doodads to liven up your vessel. Examining your kit, you can identify items you may want to upgrade. In my brief nautical modeling career, I've used turned aluminum main battery guns (Master makes excellent ones), 3D printed and/or photo-etched secondary battery and anti-aircraft guns (Blue Ridge and others), and other items (see photo-etch and anchor chain discussions further below). Having used a wooden deck by Blue Ridge, I'm a big fan – this precision designed, laser-cut overly really captures the scale look of the real thing. It installs over the kit deck in perfect, and I mean PERFECT, register (you may want to bevel your kit deck lower edges to account for the ~0.01" thickness of the wood deck). Even if your deck is painted, the ability to paint the deck while off-model, then install it, avoids many hours of tedious

masking. These wooden deck sets often come with main & superstructure treatments, and even small decks for launches and lifeboats

- a real low cost, high value enhancement to your model. Free Time Hobbies (see links at bottom) is an excellent online source for all these goodies.







Scratch items: On a modern kit of a nautical subject, you may be fortunate to avoid the need for any scratchbuilt items. However, a common shortcoming is lack of a flagstaff at the stern or a jackstaff on the bow. I like music wire for this purpose, with holes drilled into the deck or hull as appropriate to accept them. I dot of thick CA glue makes a nice topper. (We'll deal with ensigns, flags, etc. later.) Masts are another item in which kit parts can suffer from being overscaled – some brass or styrene rod can really enhance the fineness of these areas.

Painting and weathering: Painting a ship model involves most of the same skill set you've developed on other models: priming, preshading, primary colors and masking, post-shading, perhaps gloss if decals are involved, and appropriate washes, filters, pigments, and final sheen coat. I find that mottling techniques, either via pre-shade or black-basing followed by a lighter mottled coat, are very effective in giving your hull a weathered look that can be dialed to taste based on opacity of your primary paint. As noted before, photos of your prototype are essential to gauge how much weathering is enough. Best to defer the final stages of weathering until after the need for extensive handling of the model is done.

All of the nit-noid small parts can be separated and mounted (I use poster putty) for painting in groups based on the needed color.

Probably the singularly most challenging aspect of basic ship model painting is the typical distinction between treatment of vertical vs. horizonal surfaces, and the sequencing of paint to make the total job as easy as possible. The wooden deck noted above is a real labor-saver in this regard but doesn't necessarily cover all decks. For small miscellaneous decks (on the superstructure, for example) I arrived at a technique of airbrushing vertical surfaces, then gently stippling the deck by hand with the appropriate deck paint – that paint being thinned and with retarder added to allow for leveling. This approach results in a slightly irregular deck covering that suggests wear due to foot traffic. (The alternative is long hours of tedious masking, which is preferred by some and can certainly yield stellar results.)

If painting a wooden deck, the technique I used without trouble

(suggested by friend and enabler John Miller) was to give the wood a quick and thin "primer" coat of Pledge Floor Gloss (PFG, a.k.a. "Future"). After this cured for 24 hours, I then painted it with the desired deck paint with enough translucence for the laser etched deck planks to show through and suggest a bit of wear. It captured the scale deck effect I was seeking.

Photo-etched parts: Now we come to the two most dreaded letters in ship modeling: P & E. You may fear it, but unfortunately you can't have a fine ship model without the stuff. If you've used PE in other aspects of modeling, you know the trade-off: tremendous enhancement of detail & scale appearance at the cost of potential personal exasperation and/or insanity.

However, ship models simply must have PE to appear something other than toy-like. PE benefits from a bath or light sanding to eliminate any remaining residue from the etching process -I just hand brush a bit of lacquer thinner over the fret and call it good. I then







lightly and very carefully sand each side with a fine grit sanding sponge to provide additional "tooth" for primer and paint. Reference 4 is an outstanding guide to most of the major PE issues.

Some kits come with all the PE you need, but there is a large aftermarket to fill the voids. White Ensign and Tom's Modelworks make an extensive line of PE frets from basic railing of various types to very specific detail parts unique to a given ship class or even individual vessel. When you stock up on railing, pay close attention to the type of railing on different sections of your ship: 2-bar, 3-bar, and other varieties.

PE parts separation can be the bane of any modeler's existence. You may have your preferred approach, and if so, stick with it. I generally lay down a piece of 3M blue painter's tape on my glass workbench, then use a newish, curved #10 blade to make the initial cuts. The tape has a little give to it, and you can brace the part with a finger while making the cuts with a pushing, rocking motion. I generally cut a few parts of similar kind and place them aside in a bottle cap or on another piece of tape until ready for deburring.

For deburring separation points, I typically grasp the part near that point with God Hand or Tamiya pliers, as flush as possible, and gently file the offending section with a fine grade sanding stick. Light pressure and a few passes usually do the job. Avoid heavier grit sanding implements – they will grab and bend the PE as you work.

Many PE parts need basic angular bends (e.g., 90 degrees) to achieve the desired shape. Tamiya pliers are a great help here, holding one side of the part rigidly in place while you gently bend the other part. Some parts can be easily bent with fingers, but to ensure a straight and true bend you can use an old credit card or other flat surface to execute a uniform bend along the part's length. PE subassemblies such as radars, catapults, cranes, etc. are generally built up with judicious amounts of gap-filling CA glue applied with a pointy toothpick or wire.

(Some pros will solder these structures together, but I haven't tried it.) Hold the part by an area as far from the joint(s) as possible with your favorite tweezers. Most of these structures carry very little load on your model, so a little bonding agent goes a long way.

Some railing sections have specific kinks, or acute bends exceeding 90 degrees. These can be accomplished the same way – but test fit frequently and try to avoid over-bending if possible. These sections generally stand on their own, which will be handy for installation.

It can be tempting to try to install long runs of PE in one fell swoop. I'd recommend going in smaller, bite-size segments which can then be joined up at a natural location. Sometimes the bending kinks, segment ends, etc. don't line up with the rail stanchions. The References have detailed discussion of this issue (such as cutting in between stanchions), but be aware that unless you are seeking glory in top-level competition, most of these little conundrums just aren't that noticeable to 99 out of 100 observers. The larger the scale, the more you may want to sweat it.

On the subject of PE railing, another source of hand-wringing is at what stage to install it. The approach that I have quickly arrived at is to finish basic ship painting (vertical and horizontal surfaces) as much as possible prior to installing railing. While still on the fret, I prime and then paint railing (generally) the same color as the adjacent hull. Some spots will be marred during separating, deburring, shaping, and installation, but touchups are generally pretty easy at the end. (Note: there may be certain assemblies on the ship which might be inaccessible after subsequent assemblies are installed. In this case, it may be beneficial to install the railing prior to painting. Always think ahead...)

Now let's face up to the elephant in the room - how PE parts, railing in particular, will be attached to the ship. My bonding arsenal consists of white glue (Gator's Grip, regular and thinned), thin CA glue, and thick/gap-filling CA glue. Each of these has their place

depending on the nature of the part. For modeling in general, I have a strong preference for methods which are forgiving of mistakes. In this case, for most railing sections other than long runs around the perimeter of the ship, I like to prepare some Gator's Grip diluted about 50/50 with water. Gently gripping the part with needle tweezers, I'll evenly dip the bottom edge in the diluted glue solution, then carefully place it in the desired spot on the model. The dilution gives you some working time to nudge the part into final position, and the nature of the Gator's Grip glue allows it to start to grab in a few seconds. This bond is relatively weak, so after a few minutes, I'll come back with a fine paint brush and apply more of the glue solution along the joint. When dry, the glue essentially disappears. This final bond is still not super strong, but it will hold up to anything short of a direct impact. It has some flexibility for hot and cold extremes, and if it should ever pop loose, it generally won't lift paint or damage adjacent areas.

What about curved railing or other PE parts which have a radius? The technique shown in Reference 4, using a rod as a mandrel to gently press the part into firm foam rubber, really works well. I was able to use a Micro-Swab or paintbrush handle for most of my needs so far. Work your way along the part with a series of gentle presses to achieve the desired curvature. Experiment a little using scrap PE railing to get the feel for it.



For the long railing runs around the ship perimeter, I defer until the very end of the build to minimize the possibility of damaging it. This railing usually can't stand by itself and the diluted Gator's Grip approach doesn't work well. Make sure the ship is immobilized, either on your base or some other creative stand. Some experienced builders (see References) will attach a run of railing to the hull with vertical pieces of tape, apply cement, then gently remove the tape later. I found this technique exasperating (at least in 1/700) with shifting and tilting railing, difficulty leveling the run, etc. What I ended up doing is taking a section of railing, carefully positioning one end on the appropriate location with tweezers, anchoring that end with a skosh of thin CA glue (very small amounts do the trick), then working my way along the length until secured. Use whatever deck protuberances may be present, like mooring bollards, to help stabilize the railing along the way. Care is needed to ensure contact between railing and deck along the length, and to maintain perpendicular orientation to the deck. The Looper 2 tool is excellent for applying a miniscule, controlled bead of thin CA along these runs of railing, and you don't have to cover every millimeter of the run. When finished, stipple some satin or flat varnish (I use Vallejo acrylic Satin) any where you see a glint of CA.

Keep in mind that you don't have to apply all the PE parts and railing in one sitting! I recommend breaking down your PE sessions into intervals not exceeding 30 to 60 minutes, depending on your personal tolerance for this kind of fine work. This approach will ensure you are as fresh and alert as possible for the process.

Once installed, you can admire your work and identify areas where you see bare brass. Gently touch it up with a fine brush and the appropriate paint – ALWAYS being mindful of what is nearby on the ship.

Rigging: I have deep experience modeling vintage aircraft types which certainly carried over to the task of ship rigging. As with a biplane model, rigging is all about the provisions you make for it EARLY in the build: figuring out where your lines will run and the associated anchor points is fundamental – then you can drill the necessary holes and install small posts which will make the later job of actual rigging go smoothly. I really dislike blind holes (a hole with a finite depth, where the line is placed and anchored externally like a flag in a golf hole), and try to avoid them whenever possible. A line which completely passes through and can be tensioned and secured from the bottom if far easier to install – I've tried to use this method for runs such as vertical yard-arm rigging, right through the flag locker boxes, with success.

My standard approach to installing rigging holes is to study photos and drawings, select rigging runs to represent (usually a fraction of the actual total), identify the hole locations, use a fine point awl to create a small dimple, then use a low RPM electric drill with miniature drill bit (usually bit size 75 to 80) to make the hole. I can't emphasize enough how important it is to install all the good, clean

holes you need EARLY to accept rigging later on. If you miss something early on, it can be impossible to adequately, or neatly, anchor a line when the time comes late in the build.

Different modelers who have done rigging of any kind on any genre of model will quickly develop preferences for rigging line. In my case, for lines which don't need to carry any load (pretty much all lines you see on a model of a powered ship), I really like the rigging line made by Uschi van der Rosten. It comes in gauges of Standard (5 thou), Fine (3 thou), and Very Fine (1 thou). (I have never actually used the latter – it is so fine as to be almost invisible, and the other gauges work well.) It is very stretchy and forgiving stuff, with a rubbery feel, and if you happen to accidently secure it with too much slack, it will contract with heat. If I have to use a blind hole for an anchor, I'll hold the line end in the hole while using the Looper 2 to apply CA into the hole without touching the line – practice with holes on an old model and develop an approach that works for you. (If necessary, you can firm up the end of the line by dipping it in a little thin CA and letting that set for a few seconds.) If I can pass a line all the way through a hole to secure on the other side, or loop the end around a post, those are the least stressful ways of completing the run. If you have a blind hole on the other end, do your best to cut the line slightly short, stretch the end into the hole with tweezers, and secure with thin CA in the hole (sound difficult and unforgiving? Yes, it is.)







Some horizontal lines, such as those between yard arms, can be applied with a small dot of thick CA glue on one end, then with a small dot of thick CA glue on the other end, gently pull the line over the CA dot with just enough tension – after a few seconds you can release. Then carefully snip both ends flush with fine nippers or mini-scissors. The Uschi line, and other similar products, are black. I like to gently brush some old SNJ metallic powder (more modern metallic powders would also work) along the length to make it pop a little. Be very careful here – you don't want to pry any rigging loose at this stage.

Miscellaneous items: After our diversion into the morass of PE issues, let's return to the basics. During final assembly of your carefully prepared and painted sub-assemblies, you'll need to be increasingly cautious to avoid collateral damage of nearby parts. That test-fitting you did early on pays off here. Watch for things you may have overlooked earlier – such as unintended sightlines through interior spaces.

Now let's revisit that important issue noted earlier: anchor chains. If your ship has visible runs of anchor chain, then there's no substitute for real chain. The best chain I've found for 1/700, at least for U.S. Navy subjects, is the chain that comes bundled with Blue Ridge wooden decks. It's fine, has the right link shape, and really looks the part. However, it's bare brass and usually needs to be painted black (really a dark gray in scale) prior to installation. I rigged up a wire holder jig and painted mine with Mission Models MMP-105 Worn Black, thinned 50/50 with a 70/30 mix of Mission thinner and Clear Primer. Skipping a basic primer coat, it won't take a lot of handling before wearing off, so treat it gently or you'll need to do touchups.

On my *Tennessee* build, there was enough abrasion of the paint during handling that I wanted to do a few touchups of the Worn Black. Not wanting to foul the deck, I rigged up a device to hold the already attached chain clear of the deck while applying small amounts of paint hereand there. I ran into another problem – the length of chain in the Blue Ridge *USS Tennessee* 1941 wooden deck set was insufficient for the three runs of chain on the ship! Unfortunately, this lovely chain doesn't appear to be sold



separately, so I found another Blue Ridge wooden deck set on deep sale and ordered that just for the chain.

After tacking one end of the chain with thin CA into the "bitter end" leading below decks (to a chain locker on the real ship), gently guide the chain forward toward the hawsepipes. Make sure at least one link fits completely through the hole, snip the excess off, insert, and secure it with a dot of Gator's Grip. Note that you don't have to attach the chain to the anchor on the other side unless that will be visible. You can then apply a little water-diluted Gator's Grip along the run to secure it in place – you don't want it sliding around in the future.

Hopefully you installed a flagstaff and/or jackstaff early on -

now you need to hoist something on them. There are many decals for flags – some may have come with your kit but the aftermarket is always there. However, nothing is more hokey looking than a perfectly rectangular, planar flag stuck to a pole. After some surveying of techniques on the web, I favor aluminum foil as a base for flag decals. Wavy shaped decals are a good start – apply side 1 to a foil swatch and let it dry. Carefully cut around it with mini-scissors, and leave at least one side with a stub to facilitate handling. Then position side 2 on the other side, keeping an eye on proper registration with side 1. When that dries, cut away the excess, and you have a flag that can be formed into what every rippling shape (within reason) that you desire. I like to mount it to the staff with a little Gator's Grip, then touch up any foil showing along edges with appropriate colored paints. On *Tennessee*, I installed an ensign on the stern (U.S. flag) and Union Jack (blue field) on the bow, typical of a ship at rest.



If you want to get clever and fancy, consider signal flags on halyards with an appropriate message. Consult your friendly Navy veteran for ideas and appropriate flags.

Figures: The most beautiful ship model can seem oddly incomplete without at least a few crew on board. Even a handful add scale and character, and are nice "Easter eggs" for the viewer to find. Tiny 1/350 and 1/700 figures can be found on many naval PE frets, but require white glue and paint to build up from 2- to 3-dimensions. I really like the 3D printed figures made by Blue Ridge – even in 1/700 scale their depth is apparent and just a little fine brush painting to apply appropriate uniform and head cover colors is enough to do the trick. I attach them with tiny dabs of Vallejo Satin varnish, which disappears in seconds.

A few representative figures is adequate for a full hull model, but a ship in action on a dynamic sea base really needs a lot more – but let's not get distracted.

Final weathering and sheen: As you get into later stages of weathering, especially with pigments for rust stains and other effects, easy does it – it's easy to go overboard and get a derelict, rust-bucket, "ghost ship" look that is generally over the top for many



subjects. Keep the U.S. Navy axiom in mind: "If it moves, salute it – if it doesn't, paint it." Keep consulting your reference photos for the right look.

A small dot of burnt umber or rust pigment, placed in high wear locations like underneath anchors, bilge pump outlets, and a few hull corners or protuberances, can be drawn down with a small medium stiffness brush to achieve a streaked effect. Below the waterline, you generally want mottling and splotchiness, not runs – you can further enhance your paint job using various pigments with a stiff round brush and a stippling technique. Pigments work best on a flat surface, and much of the effect can be lost under clear coats. Once on a base, your ship won't be handled much so it's OK to do these steps at the very end. Most active ships have a satin sheen and are rarely high gloss or dead flat. Again, study your prototype to decide on appropriate final finish. Consider hitting any ensigns, flags, etc. with a matt varnish to tone them down. You may need to touch up certain small areas with a different sheen, applied by hand. Make sure you've subdued any extraneous glue spots at this point.

Bases and mounting: Bases are limited only by your imagination. Consult the References, and examine the ships at model shows for ideas. As noted earlier, the base can help you brace the model during later assembly tasks, so consider developing it early in your build.

For waterline models, you're on your own to develop a realistic sea base, but Reference 3 has an article on the most convincing method I've seen.

Specific Notes on 1/700 USS Tennessee (BB-43)

Since this ship is the "poster child" for much of this article, here are some notes on this specific build which may help illustrate thought processes and decisions which can shape a ship model project...

Appearance: This model represents *Tennessee* as she appeared at the time of the Pearl Harbor attack in December 1941, based on review of many contemporary photos and documents. Some items are definitive, some remain "best guesses" based on available evidence:

- Measure 11 colors: Horizontal surfaces 20B Deck Blue, vertical surfaces 5S Sea Blue, upper works 5L Light Gray (aft mast Sea Blue up to fighting top) all LifeColor acrylics
- Lower hull Mission Models MMP-111 Anti-Fouling Red over a mottled black primer coat
- Turret top colors representing Battleship Division Two, Section One
- No visible "43" hull numbers
- Ship's complement of OS2U Kingfishers was disembarked to Ford Island
- Representative major rigging shown, much omitted for modeler sanity
- Various secondary & anti-aircraft guns and searchlights are shown ready for action, not necessarily as configured when dockside
- Deck awnings were often in place, omitted on the model for clarity
- Overall light weathering representative of a 22-year-old, well-used but maintained ship in the peacetime Navy

Modifications: For years, if you wanted a pre-war U.S. Navy battleship other than *Arizona*, you were limited to expensive, cottage industry resin kits. Now we have a plethora of great injection kits in multiple, common scales. The Trumpeter kit (05781) is excellent and for the most part, accurate. The kit is designed to allow building any of the "Big 5" battlewagons (common sprues but separate boxings) - *Tennessee* and *California*, or *Colorado*, West Virginia, Maryland. Like most kits, it can be improved with tweaks and aftermarket accessories – I made the following changes:

- Blue Ridge wooden deck and anchor chains, 3D printed cage masts, 5"/25 guns

- Master turned 14" barrels

- White Ensign & Tom's Model Works PE railing, yard arms, etc.

- Added 3" guns on bridge wings and abeam the aft mast
- Added scratch ship's bell to forward mast
- Fabricated Turret 3 catapult from Tom's MW PE and scratch items
- Modified aft fighting top openings per photos
- Replaced kit screw shafts with brass
- Added 5 crew figures from Blue Ridge 3D printed set

- Wooden base with laser-cut "Tennessee" shape (found on Etsy) and my own painted brass lettering via a mask I made on a Silhouette Cameo. (This base allows removal for placement on the Trumpeter kit base for an upcoming Museum of Flight display on the Pearl Harbor attack.)



There is also a Trumpeter kit of *Tennessee* representing the profound changes following a full modernization refit at Puget Sound Naval Shipyard in Bremerton, WA in 1943. Yep, I'll be doing that one as a companion. (The other Big 5 battlewagon kits are similarly offered.)

There you go. Bravo Zulu! There is much to learn, but you are armed and ready for your first adventure on the high seas of ship modeling. Hopefully you can avoid some of the shoals – but you have no more excuses. Anchors aweigh, Shellback!

My thanks to Tracy White for historical consultation on USS Tennessee, and Daniel Carey for helpful note-sharing on his parallel build of the Trumpeter 1/700 West Virginia.

RESOURCES

White Ensign Models - https://www.whiteensignmodels.com/

Tom's Model Works - https://www.tomsmodelworks.com/catalog/index.php

Free Time Hobbies - https://freetimehobbies.com/

Mission Models Paint - https://modelpaintsol.com/mission-model-paints

Uschi "Rig That Thing" Line - https://www.uschivdr.com/shopping-categories/shop-rigging-and-various/

Drill Bits Unlimited - https://drillbitsunlimited.com/

OTHER REFERENCES

Researcher at Large (U.S. Navy historical documents) - https://www.researcheratlarge.com/

"Nomenclature of Naval Vessels," Naval History and Heritage Command (a really useful guide to the rich and ancient world of nautical jargon) -

https://www.history.navy.mil/research/library/online-reading-room/title-list-alphabetically/n/nomenclature-naval-vessels.html



Special Hobby 1/72 Harvard Mk. II/IIA/IIB "The British Commonwealth Air Training Plan"

by Jim Bates

We all have our fantasies. Mine often involved radial engines and large propellers...and while types such as the Avenger, Corsair, Spitfire, and Hurricane filled my youthful dreams, so did a yellow aircraft that seemed ubiquitous in 1970s Ontario. Even though the RCAF had retired the Harvard in 1965, there was one at the local airport, quite a few more down the road with the Canadian Warplane Heritage in Hamilton, and even a little further down the road in Woodstock, Ontario. It had everything that an aviation obsessed youth would want in an airplane. It made lots of noise, it had a radial and a large framed canopy, a beautiful wing shape, combined with a somewhat chunky fuselage, and often was painted yellow with big maple leafs. I was captivated. Its shape was imprinted upon me. Hey, I'd love to fly the other types listed above, but those weren't airplanes that an average private pilot could realistically get a chance to fly. I got lucky and got a few chances later in life to fly the type, and while my formation work was subpar, the Harvard fulfilled many of my aviation dreams.



The Harvard was a derivative of the North American NA-16 which first flew in 1935, in Maryland of all places. North American had high hopes for their design, but I'm not sure they could even imagine that the NA-16 would lead to a family of aircraft that would receive the tag as "the pilot maker." At least in the western world, that wasn't hyperbole for military aviators from the late 30s until the final aircraft were retired by South Africa in 1995.

The Devil is in the Details: SNJ? AT-6? T-6? Harvard? Why so many names for the same airplane? Well, when you make over 15,000 copies of an aircraft everyone is going to give it their own name. To be as simple as possible the US air force called the AT-6 (wartime) and T-6 (postwar) the Texan. The US Navy called it the SNJ, and the Commonwealth decided upon Harvard. But, as they say, the devil is in the details. A South African Harvard could be a RAF Havard Mk. II, an SNJ, or a T-6. They called them all Harvards. So what is a Harvard Mk. II? Again, it depends on the details. I am going to focus on the Royal Canadian Air Force Harvard IIs in this review, but even then do you mean an NA-66, NA-75, NA-76, or NA-81? An AT-16 or a Noorduyn Harvard IIB? All had slight detail differences.

The Harvard in Scale: In 1/72nd, there has been only one Harvard kit prior to this Special Hobby release and that was a 1965 release by Airfix. While it was called a Harvard, it still featured the shorter T-6 canopy, though a long exhaust was provided. All other T-6s in 1/72





have been T-6Gs. The first was a Hawk kit in 1955. The shape is pretty good, but there is no detail and the stars and bars are engraved into the plastic. A new T-6G kit was issued by Heller in 1978 and I've built this kit a few times over the years. The Heller issue had some fantastic box art, and the plastic was quite nice, though it features raised panel lines. Two issues were that Heller scribed the baggage door on both sides of the fuselage and for some reason did not provide a full instrument panel for the rear cockpit. Academy joined the scene in 1998, with a new tool T-6G, but this kit was certainly "inspired" by the Heller kit. Finally, Hobby Boss issued an Easy Assemble T-6G in 2007. This kit appears to be "inspired" by the Academy kit…so a copy of a copy. (Hey Steve, did ya bring me any pizza Steve?)

Those of us that wanted to build a true RCAF Harvard were left with our Heller and Academy kits and had to overcome our fears of vacuform canopies. Thankfully, those days are over.

Unfortunately, Special Hobby has not given us a new-tool Harvard IIB. But they have taken the best T-6G on the market and given the modeler new plastic and resin parts to create a Harvard II. An in-box conversion, so to speak.

The Academy T-6G consists of three sprues of grey plastic and one of clear. The molding is crisp and even after all these years there isn't any flash on the parts. The scribing is perfect, and better than seen on quite a few kits released this year. The canopy parts are crystal clear, but only the windscreen and land light covers will be used. I've built the Academy T-6G in the past and it is a nice kit that goes together well. The only real issue I had was that I thought the engine lacked detail and replaced it with a Aeroclub white metal radial engine. Upon revisiting the kit for this review, I'm not sure it is necessary. Academy was quite kind when they tooled the kit, adding various scoops, aerials, and antennas, including the ADF housing used on the Harvard 4. As I stated above, this kit was inspired by the Heller kit, as it repeats the error of the baggage door on both sides of the fuselage. But outside of leaving out the weapons and the ADF "football," the Academy kit improved upon the Heller kit by providing the cowling as one part, adding additional detail to the cockpit and generally taking advantage of twenty years of improvement of injection modeled technology.

Special Hobby has added three new canopy sections; one for an AT-6F/SNJ, one for a Harvard II, and one for an AT-6A/D. Unfortunately, for those that wish to model their canopy open, the rear cockpit sliding cover is molded shut. The new canopies are beautifully molded, but one will need to cut part of the fuselage to fit the Harvard canopy.

Additionally, Special Hobby has provided a tiny sheet of painted photo etch for seatbelts and a ring and bead sight for the RNZAF option. The resin consists of two spade grips, a connector for the two control columns, a twin Venturi, a cranked pitot tube, and the important long exhaust. All the resin parts look great, but getting the pitot tube off the connector will be interesting!

Finally, a decal sheet is included for one RCAF Harvard, two RAF Harvards, one with Polish markings, a South African Harvard, and a Royal New Zealand Air Force plane. The decals are all well printed and look great on the sheet. (Note that the South African Harvard has the short AT-6 canopy. This is because this was a batch of aircraft originally intended to be AT-6Cs for the US military but were passed to the RAF and in this case then to the SAAF.)

The Devil is in the Details Mk. II: Let's assume that one wishes to build the provided RCAF aircraft Harvard Mk. IIB 2625 of 34 Service Flying Training School at RCAF Medicine Hat. This would be a North American built NA-66. It would be correct to fit the twin Venturi and the cranked pitot. Special Hobby suggests using Interior Green, but the RCAF NA-66s were painted silver inside. (They were repainted in a Bronze Green when overhauled by Noorduyn post war.) One warning is that no RCAF Harvard was ever fitted with a spade grip in the back seat. I believe this was due to the rear control column being removable and not having a spade grip made it easier to store in the cockpit. Also, most likely, the landing gear doors were removed by the time the aircraft was training students.

A few other items of note. NA-66s had X-shaped rollover braces not the single brace provided in the kit. (This is correct for a Harvard 4 and a T-6G.) The baggage door on all RCAF Harvards is square, not the more stylized shape of the T-6G provided in the kit. (And don't forget to remove the door on the other side of the fuselage.) Special Hobby directs the modeler to paint the four lights under the fuselage, but these are not a feature of RCAF Harvards. Additionally, the Harvard II did not have the twin lights of the bottom of the rudder; this too was a T-6G and Harvard 4 feature.

I hope that this review does not come across as too didactic and critical. I am overjoyed to have a reasonable Harvard IIB out of the box. (Heck, I ran out to Skyway Hobby as soon as I heard it was in stock.) This is a great adaptation of the Academy kit, but the T-6 family is difficult and there are tons of small detail differences that can catch the modeler by surprise.

Historical photos courtesy of the Canada. Dept. of National Defence/Library and Archives Canada

















Revell 1/48th Scale Northrop F-89 Scorpion

by Jeff Smith

This is the 1/48 Revell F-89 Scorpion, which is kitted to allow either a D or J variant to be built. As per my usual idiosyncrasies I could not leave well enough alone and decided to purchase a Fox 3 studios H pod conversion many years ago. Fast forward to the present and about half-way through my build I noticed at Hyperscale there was a gentleman named Chad (FlyingSModels) who was 3D printing H pods and offered me the first set for a trial run. All I could say when they arrived was WOW! They are splendid. He supplied me with Falcon missiles, FFARs, and launch rails. What a Godsend. Technology has made huge strides everywhere including our hobby. Well onto the build. As usual for me I elected to use aluminum foil to replicate an aluminum A/C. I made use of a BlackBox cockpit, SAC metal landing gear, and parts of a Superscale F-89 decal sheet. All of the yellow and black trim was masked and painted with my airbrush. The squadron badges (both sides of vertical stab) were sourced from 2 Eagle Strike Voodoo sheets which featured a plane from the same FIS as my Scorpion. A little spendy but I was really hooked on the scheme. The SAC gear were a must given the amount of weight required to make it sit on all of its gear. I still have to add a couple of figures before I stick a fork on it. I'm certainly looking forward to our first meeting in well over a year. I've missed our friendly banter and gentle ribbing.







British Columbia Sub Service?

by Jim Bates

It appears that Das Werk has a hit on their hands with their soon to be released 1/72nd scale U-9 U-Boat kit. If they are looking for ideas on a follow up, how about the HMCS CC-1 and CC-2, Canada's first two submarines?

The two Davids are big fans of the Drachinifel YouTube channel. Yesterday, Mr. Knights suggested I check out their latest video on the Royal Canadian Navy which is humorously subtitled "Sinking you, but politely." I enjoyed the video. While I was aware of the RCN's Corvette story thanks to the 1/72nd Matchbox kit (a kit I lusted after in my youth, but never got a chance to build), I was surprised by the story of Canada's first two submarines. Wow, how have I never heard this story before?

OK, I take that back, they weren't bought by Canada, but the province of British Columbia. While the thought of a province with its own military service seems rather shocking, it does make some sense that the province, so remote from the Atlantic Ocean and Canada's capital in Ottawa, would want to defend its shores. The CC-1 and CC-2 submarines were not identical, but similar versions designed by the Electric Boat Company. The Electric Boat Company contracted with the government of Chile to build the two boats, but, after completion, the deal fell through. Subcontractor Seattle Construction and Drydock Company looked to offload the boats and the Premier of British Columbia stepped in to purchase the subs. The two subs left Seattle without permission on August 3, 1914 and made their way to British Columbia, with the USN in chase. Within days, the submarines were



transferred to the Canadian government and joined the RCN, being renamed HMCS CC-1 and HMCS CC-2 in October 1914.

However, the RCN had a problem. World War One had broken out in Europe, and the subs were based in Esquimalt, B.C., in the Pacific.



After their refits in 1914, the two subs undertook patrols and training in the Pacific, but a decision was made in 1917 to send the boats to the Atlantic. Leaving B.C. on July 21, 1917, the two subs had - in the best tradition of RCN second-hand submarines - multiple maintenance issues, failures, and problems, but the crews persevered, and they were the first RCN warships to pass through the Panama Canal. Finally arriving in Halifax during October 1917, after many stops for repairs, the two subs were found to be in need of an overhaul. During their time in drydock, the subs survived the Halifax Explosion. But after all this work, expense, and time, the boats were used as training craft and never went on patrol in the Atlantic.

So yea, these things didn't do much to help the war effort, but hey, I'd buy one copy of a 1/72nd CC-1 or CC-2. See Das Werk, a guaranteed seller!

(Photos are courtesy of the Department of National Defence/ Library Archives Canada. I'm unclear if the photos were taken in Seattle or Halifax, or even one of each.)



Great Culturally Essential Questions at Epochal NWSM July Meeting

by Scott H. Kruize

July marked a fine milestone: the meeting of the NorthWest Scale Modelers was actual, not virtual, and took place in our regular classroom at the Museum of Flight. I was able to ask 'Six Questions' interactively, face-to-face. For the occasion, I backed away from our common aviation-history specifics to mention vehicles of Great Cultural Significance to Us Aging Baby Boomers. I asked:

1 - What mail order supply house can speed up your pursuit of lunch with rocket skates, jet-powered sneakers, and a 'Bats-Man' outfit you can fly around in?

2 - Long before 'stealth' aircraft were all over the news, whose plane was actually invisible?

3 - In the 'World of Tomorrow', what aircraft type enforces security for New York City against sinister forces? Bonus: what special features does this aircraft have?

4 - What vehicle is identified simply because 'beep-beep...beep-beep-beep-beep'?

5 - How is it that when he settles into his seat and turns on the ignition, Mike Mercury isn't the least bit concerned about what driving conditions might be like?

6 - You ought to lay off operating what vehicle...because persisting will drive your father to drinking?

No cheating, now! See which of these you're able to answer - with your remaining active gray cells - before you turn to enlightenment from either the Web, or page 23 of this newsletter.

Silver Birds Over The Estuary: The MiG-21 in Yugoslav and Serbian Air Force Service, 1962-2019, by Bojan Dimitrijevic & Milan Micevski

reviewed by Chris Banyai-Riepl

The Mikoyan Gurevich MiG-21 was the leading supersonic fighter exported from the Soviet Union, and it found its way into the service of a great many air forces around the world. The MiG-21 proved popular with the air force of Yugoslavia (and later Serbia), with the country flying just about every variant of the MiG-21, and operated the type for over 50 years. This book documents the MiG-21 over Yugoslavia in detail, both through text and visual materials.

The Yugoslav Air Force received their first MiG-21F-13s in 1962 as a replacement for the F-86E and F-86D Sabres, so it was quite a step up compared to those two planes. These were soon followed by the improved MiG-21PFM in 1967, along with the MiG-21R reconnaissance variant in 1968. At the same time, the Yugoslav Air Force also received the MiG-21U in 1965 as a supersonic trainer.

The next upgrade for the Yugoslav Air Force came in the form of the MiG-21M and MiG-21MF, which arrived in 1970 and 1975, respectively. Once again, these provided a step up in technology for the Yugoslav Air Force, but more was yet to come with the ultimate MiG-21 variant, the MiG-21bis. The MiG-21bis arrived in 1977 along with the MiG-21UM improved two-seat trainer. While most of the MiG-21s were retired by the late 1990s, the MiG-21bis and MiG-21UM remained in service for much longer, with the MiG-21bis finally retiring in 2015 and the MiG-21UM still in use in limited numbers.

While the text does a great job documenting the acquisition and operation of the MiG-21 by the Yugoslav Air Force, for me it's the photos and drawings that really set things apart. In addition to the expected black and white photo coverage, this book also includes quite a few period color photos, showing these planes in all their glory. The color profile illustrations also showcase the evolution of colors and markings of the MiG-21 over Yugoslavia.



For anyone interested in the MiG-21, or interested in Yugoslav aviation, this is definitely a book worth having. My thanks to Casemate for the review copy.

Europe @ War Series Authors: Bojan Dimitrijevic & Milan Micevski Publisher: Helion & Company ISBN: 978-1-913118-69-3 Binding: Softcover Pages: 72

[Thanks to Chris Banyai-Riepl and www.internetmodeler.com for permission to use his article. - ED]

NWSM '6 Questions' Answers (and Moral Guidance!)

1 - What mail order supply house could possibly be more helpful, shipping a variety of sturdy crates all the way out to the Southwestern desert, for use by its favorite genius customer? ("Wile E. Coyote – Genius": that's what his card says!) Caveat Emptor: Acme warrants its Anvil - for example - as being heavy and sturdy...but not that it necessarily will fall where its new owner intends...

2 - Wonder Woman's transparent and next-to-invisible 'Robo-Plane' has served her at least since the '50s, way before 'stealth' aircraft were all over the news. Moreover, it also predates development of semi-autonomous aerial vehicles. She doesn't need to futz with the controls every instant; the plane flies itself, or hovers, according to her needs, and instructions she gives the plane via her powerful telepathic abilities.







3 - In the 'World of Tomorrow', Sky Captain's aircraft looks superficially like a Curtiss P-40 fighter plane - but it's not at all like the stripped-down, bargain-basement, minimally-functional, Government-Issue Army Air Corps version. Neil Makar pointed out that first, it's amphibious: able to operate through the air or underwater. He also commented on its incredible gas mileage: cruising from our East Coast all the way to Tibet on a single tank of gas. Ken Murphy pointed out its incredible unlimited vertical performance, coupled with



maneuverability so extreme that can make right-angle turns over New York City to change instantly from going down the street to going down an avenue. I can't understand why all the ordinance suppliers and designers of the world's militaries didn't insist THEIR vehicles be armed with machine guns that can cut through structural steel like it was butter. And mainly as I pointed out in my review of the movie in this very publication, years ago - YOUR P-40 doesn't even HAVE a backseat...much less Gwyneth Paltrow in it!

4 - When you hear 'beep-beep...beep-beep...[its horn went] beep-beep-beep' what could possibly be following you, keeping up with the maximum speed your Cadillac can attain, but a little Nash Rambler in second gear? 5 - Why on Earth would Mike Mercury be the least bit concerned about what driving conditions might be like? He's at the controls of SuperCar!

With beauty and grace, as swift as can be watch it flying through air it travels in space or under the sea and it can journey anywhere!

6 - Well, Charlie Ryan gave us that first warning in the song he wrote, claiming that his Model A "that looked like a pup" actually had a 12-cylinder Lincoln engine – and "used all of them"! Apparently Commander Cody got hold of one also, and although his claim was for only an 8-cylinder engine, the fact is: these machines are outrageously fast - and probably make Henry Ford turn over in his grave whenever either version of this song is played. Their owners claimed their "brakes are good and the tires fair" and therefore survived impromptu races...till their fathers having to post bail after their well-deserved arrests - both told them: "Son, you're gonna drive me to drinkin' if you don't quit driving that Hot Rod Lincoln!"

Don't these machines just cry out for being modeled?





Meeting ReminderAugust 1410:30 AM to 1:30 PM



North Bellevue Community/Senior Center 4063 -148th Ave NE, Bellevue

Directions to NBCSC: From Seattle or from I-405, take 520 East to the 148th Ave NE exit. Take the 148th Ave North exit (the second of the two 148th Ave. exits) and continue north on 148th until you reach the Senior Center. The Senior Center will be on your left. The Center itself is not easily visible from the road, but there is a signpost in the median.