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After This, What?

Two months ago, Jackie and I drove over to Wallingford, to a small, cottage-like house that was hidden by old-growth trees and shrubs. A retired couple received us and led us down to a small, windowless basement room that reeked of… 'spider-country'. We were there to pick up a tiny modeling estate that had clearly been collected over the gentleman's lifetime.

What intrigued me on this particular visit was an even smaller, doorless closet off of this tiny room. It couldn't have been more than four feet wide and 12 inches deep, like a bookshelf set into a wall. Unlike the outer room, which had stacks of kits covered with dust and cobwebs, this 'closet' was lined with LED Christmas lights and well taken care of. On each shelf was at least two, and in some cases three built models, all armor, with a small figure standing next to each one. Behind each kit was a small, framed photograph. The photograph, and the figure, were supposed to be of the commander of that particular tank.

What we were looking at was a 'shrine' of sorts, a montage to each tanker and build on the shelves. I was able to identify Rommel, Patton, Montgomery, and Guderian from their photographs, but there were a host of others, 20 or so, that were obscure enough to be lost in history even for an old armor modeler like me. Our host had meticulously dusted and maintained this little collection, and he was very proud of it, we could tell. In fact, when I started to tell him that built models did not have much value to the club, he told us that we were welcome to all of the kits and books, but the artifacts in the closet were for their two daughters, in case they wanted them.

We loaded the car, said our goodbyes, and left. I was sad. I knew their daughters would not want the collection – after dealing with so many estates I could just tell. It was like seeing someone collect a full set of dishes over a lifetime, only to watch them left, untouched, by those they saved them for.

So what does that mean for the rest of us? Many of us have poured a vast amount of time and treasure into our hobby. And speaking for myself at least; I have zero regrets. I enjoy this hobby tremendously, and I am taking photographs of nearly 300 builds, to be put into an 'art' book, with copies headed for my

kids. From time to time, however, I catch myself, in my mind's eye, visualizing the eventual dump of all of my work into a dumpster. One of my modeling mentors, Jim Schubert, used to say (when presented with this fact) – 'I don't give a shit, I'll be dead'. And he was right. Still, my heart goes back to this couple in that old, old Wallingford house. Sad.

Hey – but not yet, right? We'll see you all on Saturday. I will be missing the next three meetings after this, so if you need to speak with me in person, make sure to attend!

See you Saturday, and Model On!

Eric

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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. 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.

Editorial Policy

Our newsletter is prepared with the goal of providing information that educates, informs, and helps expand the skills of our membership about our hobby: plastic scale modeling (including resin, vacu-form, and 3-D printed scale models). All content related to the hobby are welcome. For more detail, please see the complete Editorial Policy here.

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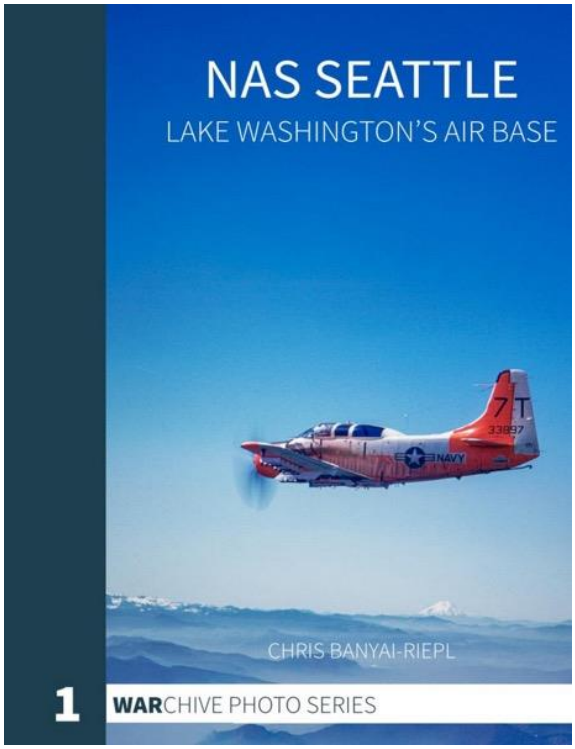
Book Review: NAS SEATTLE: LAKE WASHINGTON'S AIR BASE



By Tim Nelson

INTRODUCTION

The subject title, authored by longtime Seattle-area modeler and author Chris Banyai-Riepl, is a photo essay on Naval Air Station Seattle at Sand Point during the late-1950s to mid-1960s period. It's the first of a new "WARchive Photo Series" by the author featuring the photography of his father, Will A. Riepl ("WAR"). The senior Riepl frequented NAS Seattle during his time serving in the Marine Corps Reserve – and compiled a plethora of first rate "all access" images.

CONTENTS

The paperback book is 8.5" x 11" and printed in full color on quality paper. Its 96 pages are divided into the following chapters:

-Origins (a history of Sand Point as an airfield, a concise but thorough summary – though oddly missing mention of the famous 1924 around-the-world flight by the Douglas World Cruisers. There are subsections covering "Then & Now" comparisons, and "Sights of Seattle" with nostalgic images of the city at mid-century.)

-Skyraiders (a treasure trove of Douglas AD-5s, many in glorious dayglo schemes)

-Boxcars (a bounty of R4Q-2s, the Navy version of the C-119, again with dayglo aplenty)
-From the Air (a collection of bird's eye scenes of Seattle, the state of Washington, and the West)
-Not Alone (miscellaneous other aircraft types which operated out of NAS Seattle)
-Spokane (views of aviation activities around the photographer's hometown in eastern Washington)

In addition to the aircraft and scenery, the images include candid glimpses into the lives of air and ground crews during this period.

SUMMARY

NAS SEATTLE (ISBN: 979-8307460665) is a unique, engaging, and entertaining time capsule of a colorful local aviation era not previously well documented. If you have an interest in Seattle aviation history, naval aviation, or just interesting airplane photos, I highly recommend this book. It's available at Amazon.com (direct link: https://amzn.to/4jctLd3).

A big thank you to the author for the review copy.

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Piececool Nagato Class Battleship

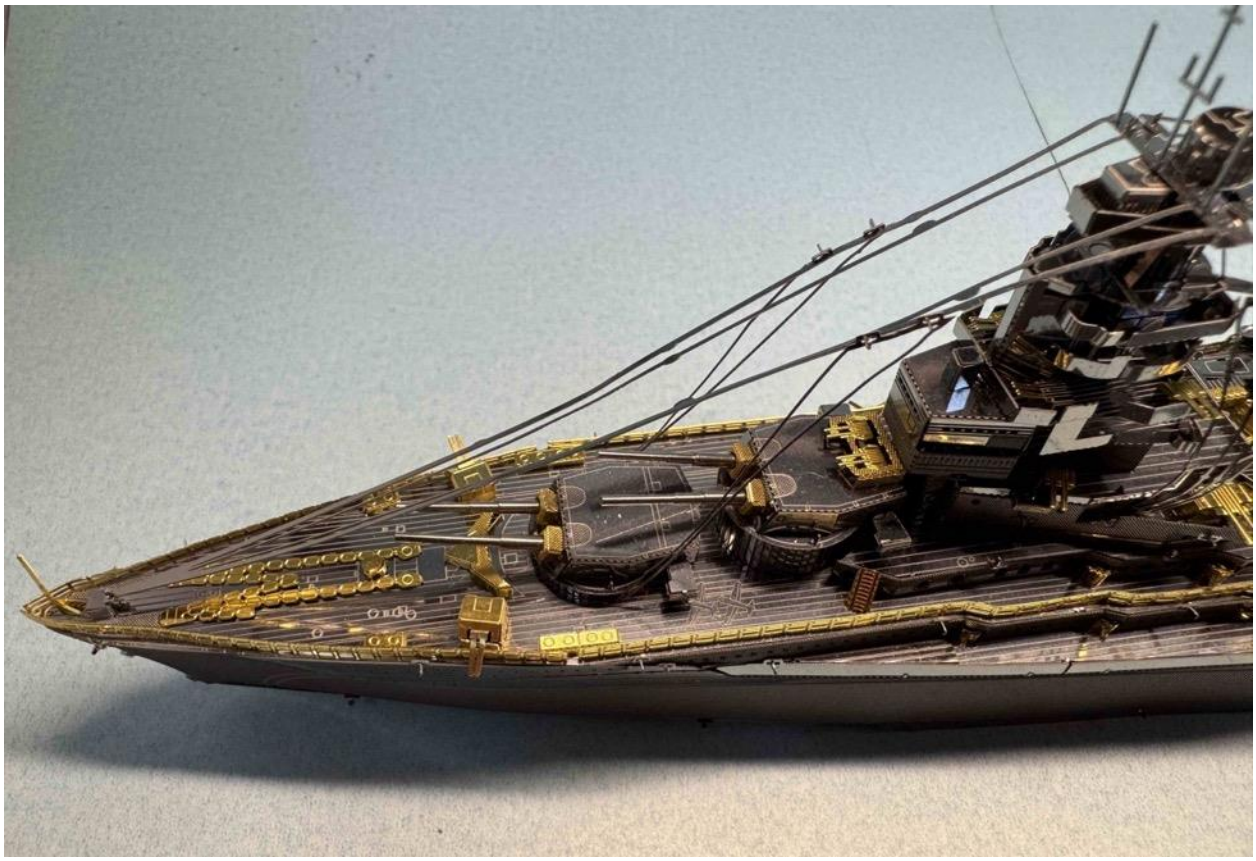
By Scott (of the Midwest) Hollingshead

And now for something completely different, or the Rick Ellis memorial build.

Unlike my usual writing style, I want to start this review by talking about my late friend and fellow modeler Richard (Rick) Ellis. I met Rick a few years before Covid and being about the same age and both of us having an interest in modeling, we quickly became friends. Over the past few years, we attended local contests together or met up at events and there were the texts that he would send, modeling related and not even close to modeling related. This past Thanksgiving, Rick sent a garbled text to me and another friend of ours mentioning a stroke and being in the hospital. There were a couple of responses to our questions, but then we would not hear from Rick again. The subsequent strokes in the hospital took my friend about a week later, but I will do what I can to keep his memory alive.

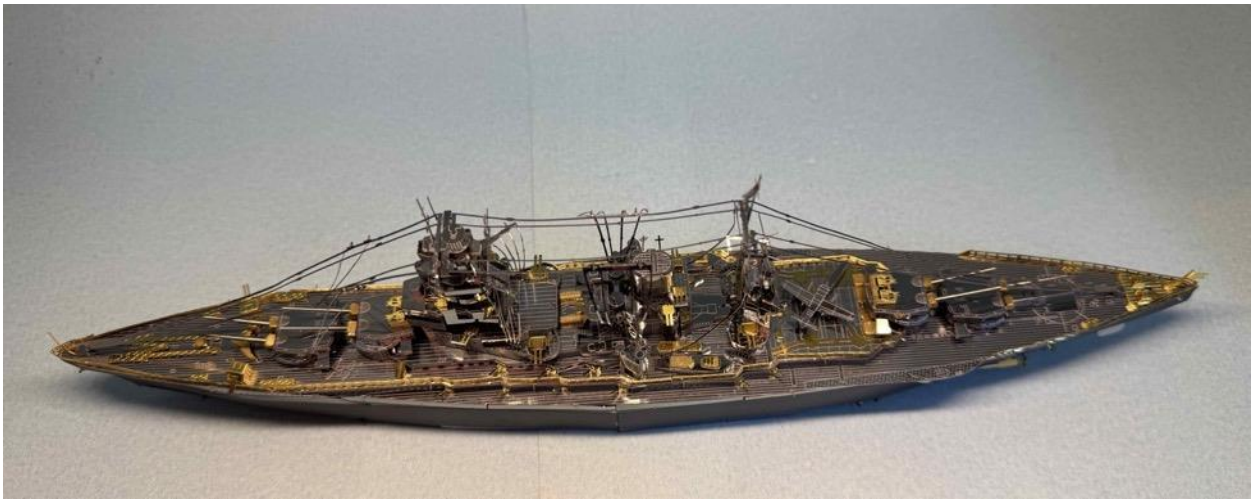
Fast forward to my club's late March meeting when Rick's brother Ron came with kits in hand that had been in Rick's stash, and Ron was not going to build these himself. Being something different, I became interested in this Piececool Nagato-class battleship. The kit bills itself as a "highly detailed metal model kit" with a level 5 (out of 7) difficulty rating. Looking before writing this, the kit retails for $19.99 directly from Piececool, but is currently out of stock. I found it being sold elsewhere for prices between $15 and $25. Upon

opening the box, you will find three silver frets (each measuring 4-3/8 by 8-3/8 inches and 0.0090 inch thick) and two gold frets of photoetched parts (both measuring 2-1/8 by 4-3/8 inches and 0.0095 inch thick), eight metal gun barrels, two pages of directions and a sheet for locating parts on the frets. I mentioned the thickness of the frets as a typical photoetch fret is around 0.0040 inch thick, so those provided in this kit are much more robust.



For a little history, the Nagato-class battleships were the last of the pre-Washington Treaty Japanese capital ships and consisted of the Nagato and Mutsu. These ships carried four 41cm (16.1-inch) main guns along with 20 single 14cm (5.5-inch) guns, four single 7.62cm (3-inch) AA guns, and had eight torpedo tubes. Nagato was the flagship for Admiral Yamamoto during the Pearl Harbor attack, and she would survive the war to be sunk during nuclear weapons tests in 1946. The Mutsu would be lost in June 1943 due to a fire that was allegedly started by a disgruntled crew member.

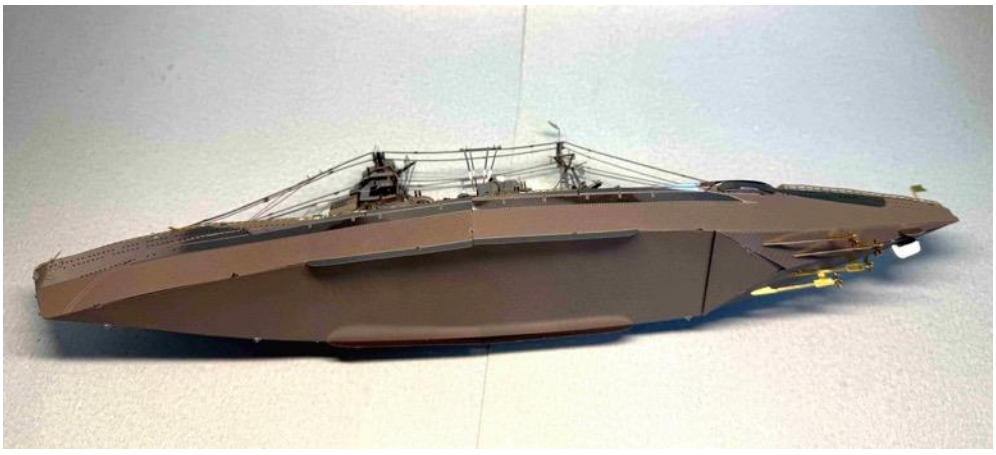
For those familiar with photoetched parts, Piececool has some rather thick frets as I mentioned, and the kit is like those produced by Metal Earth. The attachment points are indeed points of arrows on the frets, and I used an older style Xuron PE nipper (item 440) to remove them and then



clean up the attachment point before touching them up with a file. Like Metal Earth kits, the parts fit together using tabs and insertion holes. The tabs are either twisted 90 degrees or bent over following the directions. The work can become a little tedious, so I spread the construction out over four different sessions of around five or six hours each. I also found my Xuron tweezer nose pliers (item 450) useful for angled bends of the parts and Dspiae and UMM stepped wire rollers useful for creating curves.

The kit instructions conveniently show a fret letter and part number for each of the steps, which makes them easier to locate on the "Sketch Map" of the parts locations. You will notice that some of the parts are shown in different colors, which signifies that there are more than one of that part number, and these may be located on different frets. Pay attention to the etching on some of the parts as that will indicate which side needs to be displayed when assembled. I found that the main mast was a little challenging to get in place, but most of the fits were spot on. The kit consists of 199 individual parts and provides plenty of practice for working with photoetch pieces.

While I did not find anything talking about the scale of the kit, its measurements worked out to about 1/720 scale. The finished model measures 30cm long, 5cm wide, and 19cm tall with the actual ships being 215.8m (708 feet) long with a beam of 29.02m (95 feet, 3 inches). My plan was to present the finished model to Rick's brother Ron at an upcoming meeting, hoping to bring some good memories for him. Ron was amazed and very happy to receive the finished model and told the story of his sister giving the kit to Rick as a gift. I think that as I get older, I will look for more opportunities to complete builds like this for others. I get all the fun of building the kit, and I do not have to think about where to store it when it is finished.



Trumpeter AH-1W

By Bob LaBouy

Product description:

"The AH-1W Super Cobra was the US Marines' attack helicopter. Designed and developed by Bell, it entered service with the US Marine Corps (USMC), Marines have been flying the AH-1W Super Cobra since 1986. The last AH-1W was delivered in 1998. and was retired in October 2020 after 34 years of service. The AH-1Z Viper, which is also manufactured by Bell Textron, replaced the Super Cobra. It is also a brand-new tooled kit in 2025.

The Super Cobra was the first attack helicopter to qualify both the Sidewinder air-to-air missile and the Sidearm anti-radiation missile. Both missiles can use the same LAU-7 rail launcher. Sidearm has a range of more than 15km. AIM-9L Sidewinder is an all-aspect, short-range, air-to-air missile has a range of 15km."

Historical & Reference Notes:

AH-1W Super Cobra

The USMC promptly sought greater payload capacity than that provided by the original Sea Cobra; thus the AH-1T, equipped with the dynamic systems of the Model 309 and a lengthened fuselage, was produced by Bell during the 1970s. In the following decade, in response to the denial of funding to

procure the Boeing AH-64 Apache attack helicopter, the USMC opted to procure a more capable variant of the AH-1T; equipped with revised fire control systems compatible with new munitions, such as the AGM-114 Hellfire anti-tank missile, the new model, designated AH-1W, commenced delivery in 1986. Seeking to further develop the type, Bell opted to develop the extensively redesigned and modernized Bell AH-1Z Viper during the 1990s and 2000s.

Photo 1: From Wikipedia

The Sea Cobra was involved in multiple major operations during the latter half of the twentieth century, such as during the United States invasion of Grenada in 1983. During the Iran–Iraq War of the 1980s, Iranian Sea Cobras were intensely used, proving itself to be capable in both anti-armor and anti-aircraft warfare. Turkey, who operated numerous Cobras and Super Cobras, used the type on multiple occasions against Kurdistan Workers' Party (PKK) insurgents. On numerous occasions in the 1990s, USMC AH-1s were deployed during the Gulf War of the early 1990s, as well as for the United States invasion of Haiti in 1994, and the US intervention in the Yugoslav Wars in the late 1990s. In the twenty-first century, the type also saw action in the multi-decade War in Afghanistan, and the 2003 invasion of Iraq. During October 2020, the USMC withdrew the last of its AH-1Ws in favor of exclusively operating the AH-1Z.

The Super Cobra is armed with a 20mm turret gun, Hellfire, Sidewinder, Sidearm missiles, and 5 inch or 2.75 inch rockets.

I have also provided the Scalemates reference as this is a great modeling site and contains the information for literally thousands of models and genres.

Initial Impressions the Trumpeter AH-1W kit:

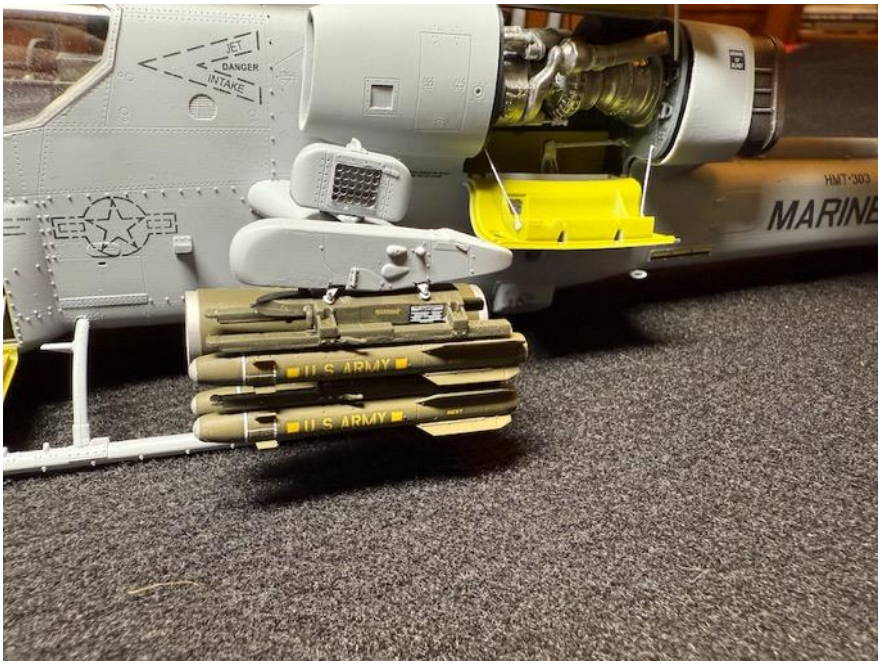
I am initially quite impressed with this kit. The surface detail very detailed and includes rivet detail and panels. It is a surprisingly large kit, with a length of a 469mm (18.46 inches) and rotor diameter: 419.5mm (16.5 inches).

Building this kit was a great exercise, beginning with the kit's exhaust ducts and cockpit interior. These steps include the pilot's seat, cockpit floor, control stick, the area behind with the fuel tanks, the radios and cockpit sides. This entire section looks and fits together very nicely. There are over 380 parts in this kit, with ten sprue sections, one photo etch section, a set of clear parts, a masking sheet and a decal sheet for three different aircraft.

Construction notes for the AH-1W:

I was impressed with several aspects of this kit, including where foam sheeting used to protect and cushion the rotor blades and clear canopy sections of the sprue trees. This method of packing clearly shows the care for parts across the entire kit.

The overall fit, when joining the two fuselage requires both a steady hand and initial dry fitting.



I also found that the center of gravity was left to the modeler to correct. I used my favorite product which works especially well for getting into any size nooks or cranny. I use both Deluxe Liquid Gravity, # BD38 and their Roket Hot Super-thin penetrating cyano glue, # AD43. This combination of very small non-toxic shot and super thin 1-5 second CA provides the sometimes-simple solution to a problem weight balance.

Also, you should be prepared for numerous small and *very* small parts. This was especially evident in the sub assembly involving the missile and weapon pylons. The drawings fail to adequately illustrate the positions of some of the smallest parts. And you will need to work with many PE parts, which brings me to another suggestion: I had recently learned about the BSI-inc.com line of Super-Gold+ cyanoacrylate (CA as it is often referred to). While it's reasonably fast setting and odorless like many other CA products, what I tumbled to is that you can use these around clear canopy sections without the usual fogging of clear areas. Try it and I hope you'll be as pleased.

There are several items need explanations for painting; there are no interior call outs for many of the interior details provided. While the instructions are generally very good, I found places where parts are shown, and the modeler is left to figure out where to place them or their orientation. I noticed that you are left with little and sometimes no indication of what paints and colors should be used, leaving the box top art and side images as your only guide. There are areas where the fit wasn't what was indicated, and some filing/sanding is required to achieve a better fit. An example is the raised area leading to the tail rotor which didn't fit without some heavy duty filing to shorter the top of the fuselage. Another particularly difficulty area was fitting the assembly of the engine exhaust manifold around when dry fitting the two halves together; I had to use some

hillbilly surgery (*Ed. Note: From Chat GPT: The term may also be used to describe practices that are not supported by evidence-based medicine or are considered dangerous or unethical.*) to get the halves to finally mate properly.

A very significant blunder mistake in not including any shoulder straps and waist belts. As these will be clearly visible, they need to be scratched, which is what I've done using tape to simulate the missing shoulder harnesses and lap belts.

Fit & Finish

This kit's fit overall kit is very good to excellent. I was disappointed when matting the fuselage halves together; taking the time to ensure the top joints were matched as closely as possible, and found the bottom joints were a skosh off and I was left with good of sanding, with a remaining small seam line is still visible along the bottom seam.

For those of you who continue to count rivets and other small details, you will also notice that my Super Cobra has only seven Hell Fire missiles; this is because I used the larger LAU-130 rocket containers rather than the LAU-131s, which precludes mounting all eight AGM-114 missiles.

While I worried about the canopy fit around its edges, I found it to be almost perfect. I attached left side first using the CA (mentioned above) with a bit of zip kicker to quickly set the CA, followed by positioning the right side. Again, it fit perfectly.

Decals are another 'sticky wicket' in their own right. I found the missile markings alone to be a very challenging aspect; they require a very steady effort and comprise a major portion of this build. This is evidenced with any of the several very thin decals, where the slightest mistake leaves you with nothing but a very tightly rolled decal mess. Be prepared for the challenge. An example are the AGM-114 Hellfire missiles, each of which has 14 (yep, *fourteen*) decals for each the eight missiles—that's 112 separate decals (***if,*** I had used them all)!!

Painting

To Trumpeter's credit they have provided a complete set of canopy masks for this a/c kit. These adhere well to the surface and allow the canopy to maintain it's clear vision for the cockpit area. I unable to match the canopy area perfectly, though once it was painted it looks good.

There are painting and markings provided for three separate aircraft including one 'digital' camouflage scheme which would be challenging though very interesting. I chose to paint this aircraft in a very clean overall condition using the two grey paints indicated for HMT-303 'QT' aircraft.

I used a variety of paints, including these primary colors: AK Real Colors Light Gull Grey # RC220; Aggressor Grey # RC248; Light Ghost Grey # RC252; Flat Black # 001; Atom Gun Metal # 20167; Mr. Hobby Aqueous Interior Green, # 53; Zeon's MS Gray, # UG 09 (for the darker gray spine color); Crystal Orange A-Mig-097; Crystal Periscope Green A-Mig-096; Metallic Black ATOM 20168, and Burnt Iron ATOM 20169. I also used several AK Real Colors Markers for both touchup and to pick out small dials and knobs, etc.

Followed by an overcoat sprayed coat of Alclad II Lacquer's Aqua Gloss Clear (#ALC 600). I used this to

provide a glossy surface for the decals. This is my personal favorite which produces a great clear finish (though in the bottle it appears cloudy, not to worry, it dries clear).

I used small amounts of Tamiya Mark Fit Strong setting solution #87135 and Walters Solvaset #904-470,

which allows the decals to snuggle down and fit tighter when dry.

I completed my dry brushings, using my old standby Winsor & Newton's Artist Oil color Naples Yellow Light, No. 426. And I sprayed my overall final finish using Testors Dullcoat Lacquer (#1160).

As you will see from the following images, I chose the paint and mark my AH-1W Super Cobra with a basic two-tone gray scheme.

Recommendation:

As you can see from earlier notes, I found this kit to an accurate kit of the AH-1W 'whiskey' helicopter and it's a great addition to my other 1/35th scale models. It is an overall beautiful kit, and I highly recommend it.

I want to thank the Model Rectifier Corporation (MRC) and Trumpeter for the opportunity to review this great kit.

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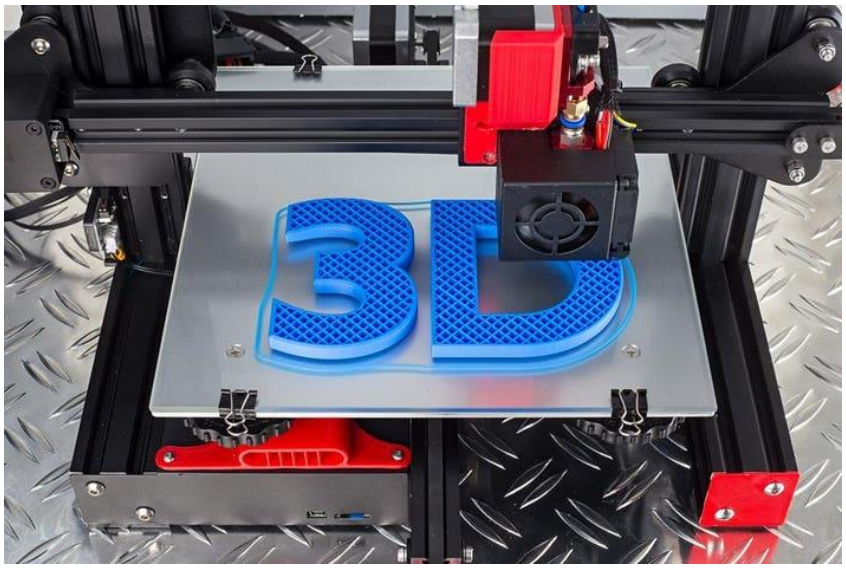
Introduction to Home 3D Printing



By Gil Vincent

Editor's Note: This article originally ran in the April newsletter, however due to technical issues (see: Editor error) the article ran incomplete. We now present this excellent article on an important topic for the hobby in its entirety, with apologies and thanks to the author.

Home 3D printing has transformed the way we think about making things, empowering hobbyists, creators, and innovators to bring their ideas to life from the comfort of their homes. For scale modelers, this opens a whole new door to enhancements and conversions where commercial solutions might not exist. But how did this incredible technology come to be, and what should you know as you consider diving into the world of 3D printing?

A Brief History of 3D Printing

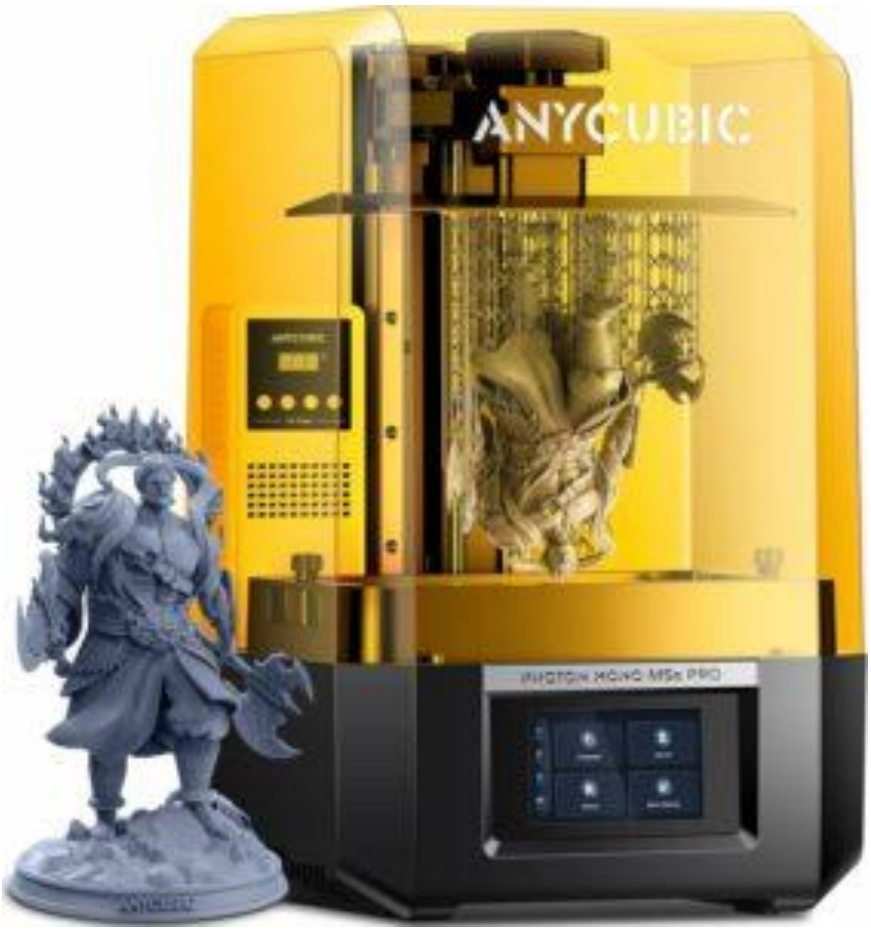
The origins of 3D printing trace back to the 1980s when the first patent for stereolithography (SLA) was filed by Charles Hull. Since then, 3D printing pretty much belonged to the field of *additive manufacturing*, where items are built up as opposed to removing material as in CnC/milling processes. In the last 10 years, the technology has evolved dramatically. What began as an industrial manufacturing technique is now widely accessible thanks to the advent of affordable desktop printers geared toward the hobbyist. From prototyping to creating intricate models, this technology has gained popularity among us model builders and professionals alike.

FDM vs. SLA: Two Popular Home Printing Technologies

For home 3D printing, two main technologies dominate the scene: Fused Deposition Modeling (FDM) and Stereolithography (SLA).

- **FDM**: This is the most common type of 3D printer for beginners. It works by extruding melted plastic filament layer by layer to create an object. Typically, the printer precisely moves a nozzle around, laying down a layer, building the object up from the baseplate. Newer FDM printers support a growing range of filament materials, many of which provide good strength. FDM printers are cost-effective, user-friendly, and capable of producing durable models and other large objects. On the other hand, some sanding and finishing may be necessary to remove evidence of “layer lines”.

- **SLA**: SLA printers, on the other hand, use a liquid resin cured by a laser or UV light to create highly detailed prints. Typically, the printer repeatedly lowers the baseplate to the resin reservoir and an entire layer is exposed to the curing light at once at the bottom of the reservoir. SLA printers usually offer better layer size and are just as fast printing many objects at once as they do for a single item, since a layer is set all at once. While SLA offers superior precision and surface finish, it typically requires more post-processing and careful handling of the resin material. At a minimum, after removing the piece from the baseplate, you must wash the part (either IPA or water, depending on resin type) and then give it a final cure with UV light to harden it. Note that the IPA or water is now contaminated and cannot be discarded down the drain!



- **Which type is best?** For modelers, we are typically interested in printing small, highly detailed objects - cockpit equipment, replacement tank exhausts, tracks, ordnance, and figures. SLA printers provide the best resolution with the least amount of finishing work required. However, post-processing and handling of resin makes it more difficult overall than FDM. SLA resins are also a poor choice for making larger objects, tools, and jigs. For example, FDM would be a better choice for printing mobile paint racks or custom airbrush stands. In general, FDM printers have a larger print area and can use stronger materials.

Each technology has its strengths, and your choice depends on what you want to achieve with your 3D printing projects. In a future article I will discuss actual 3D printing operations in more detail.

Software for 3D Printing 3D printing software is a crucial part of the workflow, enabling users to design models, prepare them for printing, and control the printing. Here are some key categories and popular tools:

- **Design Software**: Tools like *Tinkercad*, *Fusion 360*, and *Blender* are great for creating 3D models. Tinkercad is beginner-friendly, while Fusion 360 and Blender offer more advanced features for

professional 3D designs. Shape-based tools like Tinkercad are easier to grasp and a surprising number of projects can be accomplished. I've seen one person design entire ground vehicles in Tinkercad. On the other hand, true 3D engineering CAD tools like Fusion and SolidWorks require fully dimensioned 3D models and involve a steeper learning curve. However, future modifications of your model are better supported in a fully dimensioned model.

- **Slicing Software**: Once a model is designed, slicing software converts it into a format that the printer can understand. Programs like *Cura*, *PrusaSlicer*, and *Lychee Slicer* (for SLA) allow users to adjust settings like print speed, layer height, and supports. Basically, the slicer takes horizontal slices of the 3D model and converts them into the locational coordinates for a layer. These layers are then turned into machine instructions for your particular printer.

Choosing the right software depends on your experience level and project requirements, but many tools are available for free or at an affordable cost.

STL Files: The Foundation of 3D Printing STL (Standard Tessellation Language or STereoLithography) files are the most common format used in 3D printing. These files define the geometry of a 3D model using a mesh of triangles, making them compatible with most 3D printers and slicing software. This means that STL is the usual file format for exchanging 3D models. Note: Object (OBJ) file format is often used for exchanging 3D models between software packages, but is only supported by newer 3D printing systems. STL is more universal in the world of 3D printing.

Where can you find STL files?

- **Online Marketplaces**: Websites like *Thingiverse*, *MyMiniFactory*, and *Cults* offer extensive libraries of STL files, ranging from free designs to premium models.
- **3D Design Software**: If you prefer to create your own designs, software like *Fusion 360*, *Tinkercad*, or *Blender* allows you to create and export your creations as STL files.
- **Community Forums**: Enthusiasts often share STL files on 3D printing forums or social media groups, providing access to unique designs created by the community. Many modelers with a presence on YouTube, Instagram, etc. have Patreon accounts where if you support their work, they give you access to their STLs.

Whether you're downloading ready-made designs or crafting your own, STL files are the gateway to endless creative possibilities in 3D printing.

Safety First: Important Considerations 3D printing at home can be an exciting and rewarding hobby, but it's crucial to prioritize safety. Here are some key considerations:

- **Ventilation**: Both FDM and SLA printers can emit fumes or particles during printing. Ensure your workspace is well-ventilated. FDM is typically less smelly and, more importantly, less of a health issue than SLA resin fumes. Consider getting an enclosed printer or external enclosure (often used for home growing) with external venting.

- **Handling Materials**: Resin used in SLA printers can be toxic if not handled properly. **Always** wear gloves and wipe up spills. Note: liquid resin does NOT dry out/evaporate. You must wipe it up and expose it to UV to cure it into a solid for disposal.
- **Risk of Spills**: Spilling liquid resin can lead to skin irritation and damage to surfaces. Direct contact can be harmful, causing skin irritation, allergic reactions, and potential respiratory issues. You may find afterwards that you can't even continue using your printer because of your new sensitivity to the resin. Work on a protected surface, and clean up spills immediately using appropriate cleaning materials (absorbent paper towels and such). I recommend placing your printer on a large tray to contain any spills.
- **Safe Disposal**: Dispose of cured resin waste responsibly. Unused liquid resin should NEVER be poured down the drain; instead, cure it under sunlight or UV light before discarding it as solid waste according to local regulations. I fear the day that some hobbyist pours uncured resin down a drain and causes a water source crisis, resulting in UV resin becoming a regulated item. Besides, you don't want to be "that guy" that caused young Suzy to suffer painful medical issues for the rest of her life because you were lazy and irresponsible.
- **Fire Hazards**: 3D printers often involve high temperatures. Never leave your printer unattended during operation.

Environmental temperature is the last topic I'll cover in this introduction. FDM and SLA printers have their own preferred operating temperature ranges. Extreme temperatures at either end of the spectrum are not good. FDM printer nozzles need to generate a specific narrow range of heat to produce reliable melting of the filament. A cold shed or garage in winter may not produce acceptable results. Likewise, SLA resin works best at temperatures in the mid-70s. Because I don't want any minor disasters to turn a room inside the house into a "toxic cleanup site", I keep mine in the garage. You can buy heating elements to keep your printer in the ideal temperature range.

By staying mindful of these safety considerations, you can make the most of your 3D printing adventures while maintaining a safe and responsible workspace.

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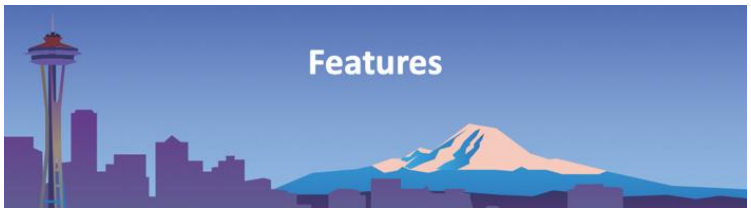


Editor's Note: We continue this excellent series of original content for the IPMS Seattle newsletter from our local OG Norm Filer. Reviewing other newsletters from around the US, it is a very rare thing to have content of such depth and expertise being generated by local club members on a consistent basis. In this day and age of overt monetization of the most trivial things we should all be thankful, and shout out to Norm for generously donating his time and brain power.

McDonnel F-101A/C Voodoo and RF-101A/C

Operation Sun Run Voodoos

Original Art and Drawings: Norm Filer

Introduction

The origins of the F-101 series are clearly based on XF-88. While the XF-88 did quite well in a couple fly-off competitions, it never really achieved production.

SAC was learning a hard lesson in Korea, the B-29s were not doing well when they encountered the new Soviet Mig 15s. and needed to be escorted by modern jets.

McDonnell had been continuing to update XF-88 to the point where SAC accepted their proposal and issued a contract in January 1951 with the designation F-101A Strategic Fighter.

The contract was awarded under the Cook-Cragie plan which started production tooling prior to the first flight and ordering long-term items in large quantities. This advanced production

Times, but ran the risk of later delays if those parts needed revision after flight test started.

Photo1: Courtesy Wikipedia

With the end of the Korean War and the emergence of the new jet bombers the need for an escort fighter was waning and in March of 1953 Mock-up inspection of the now "Strategic Fighter. With the war over the USAF could proceed at a slower pace and since the F-101 had still not flown a new policy was instituted to replace the Cook-Cragie plan. This resulted in a

hold being placed on both funds and production until after Category II flight testing was completed.

The first airframe was completed during the summer of 1954, and the aircraft was transported to Edwards AFB by two C-124s and reassembled and prepared for the first flight. That occurred on

September 29th, 1954. Serious issues arose at once. Compressor stalls occurred during the early flights and were severe and significantly restricted maneuverability.

Several months of testing and experimenting with intake ducting before satisfactory configuration was developed. And this only at a significant reduction in aircraft performance.

If that wasn't enough the more serious problem was that the high "T" tail. At high angles of attack and/or high G loads the turbulence from partially stalled wing negated the lift on the

Horizontal tail. The nose would pitch up to 60–80 degrees, causing a rapid loss of airspeed and sending the aircraft into a spin. McDonnell spent the following three months attempting

To solve the problem but were never able to fix the problem. Most aircraft's flight envelope is defined by stall speed. The F-101 was defined by pitch up boundaries. We will revisit this when we get to the F-104 profiles.

The USAF concluded that they could save the F-101 from costly termination by diverting production from Fighters to reconnaissance and interceptors. By adding a pitch inhibitor system which

Provided with a warning horn as a pitch up was approached. This was enough to satisfy the USAF, and production resumed in November,1956.

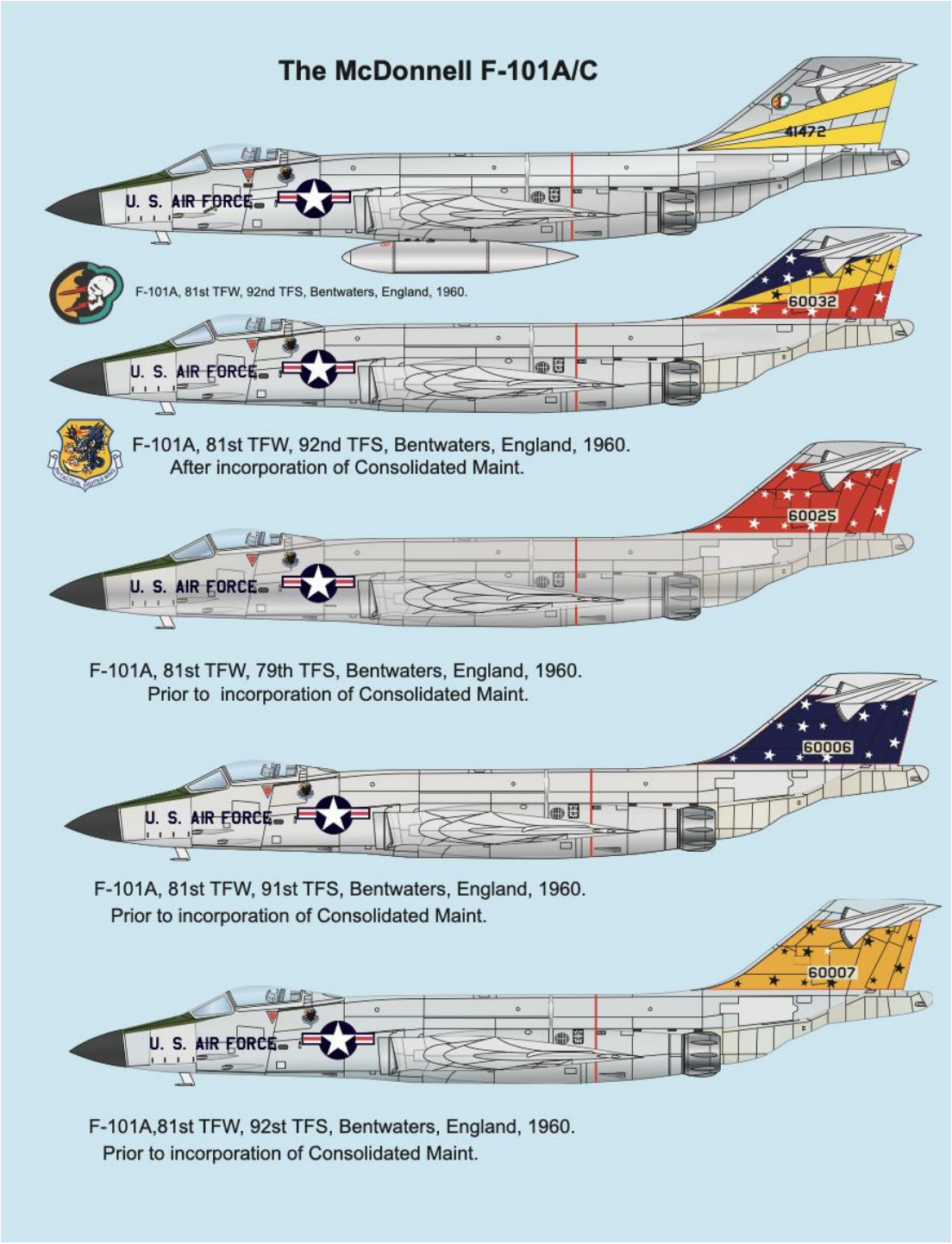
Besides the twenty-seven preproduction F-101As, forty-eight production F-101As were ordered. Plans called for delivery of production F-101As to SACs 27th Strategic Fighter Wing at Bergstrom AFB Texas starting in June of 1956. But development problems delayed that delayed that until May 1957.

Photo 2: Courtesy Wikipedia

F-101A/C

In September of 1957 the 27th FBW began to receive the upgraded F-101C. this was essentially a f-101A with internal stiffening to increase the “G” capability from 6.33 to 7.33.

At the end of 1958 the 27th started the transfer from Bergstrom AFB Texas to RAF Bentwaters England where they would become the 81st TFW. And in the fall of 1965 the F-101C was being replaced by new F-4 Phantoms.



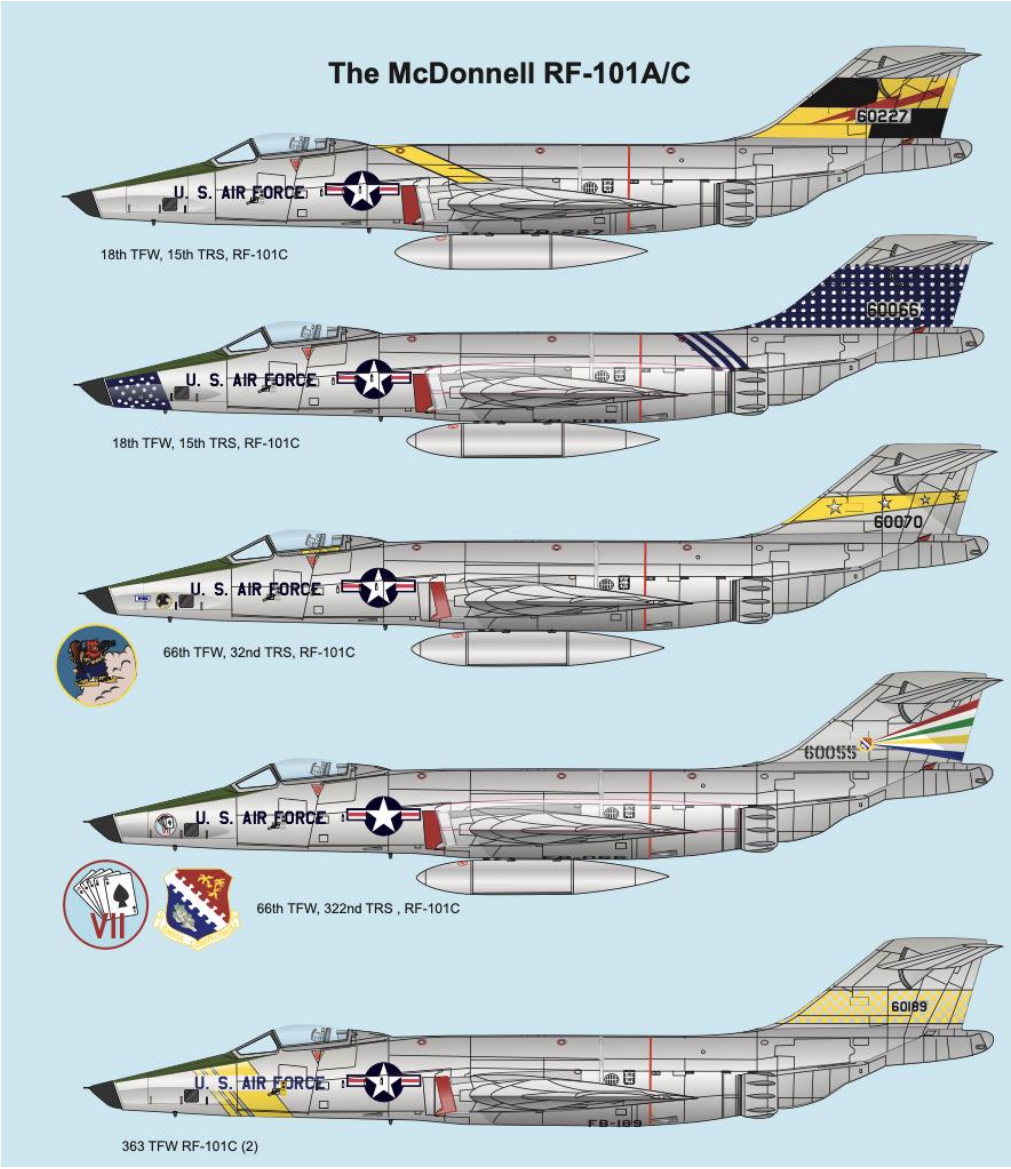
RF-101A/C

In May of 1955 the first of two modified F-101As were completed and flight testing started. At this point SAC completely departed the Voodoo program and TAC assumed all F-101 contract control.

Shaw AFB, South Carolina became the home of the Recon. Voodoos on 6 May 1957. The 363rd Tactical Reconnaissance Wing. The Wing consisted of the 17th, and 18th TR Squadrons and the 432nd

Tactical Recon Group, which contained the 20th and 29th TRS's. In Feb. 1958 the 432nd was elevated to Wing status and assumed control of all four squadrons.

After 35 RF-101As were produced they were replaced by the strengthened RF-101C and those became the sole TAC recon platform for many years. Cuba become the first significant deployment in 1962



When they started flying constant low-level missions to detect Soviet missile deployment in Cuba. The American TV audiences were treated to almost daily images from these flights.

Southeast Asia was probably the most significant period of RF-101 deployments. Oct. 1961 saw the first deployment when four 15th TRS RF-101Cs landed at Saigon International Airport. They stayed in that conflict until the final missions in 1970 when the tired RF-101Cs were turned over to the Michigan ANG.


The McDonnell RF-101A/C
60155
U. S. AIR FORCE
363 TFW RF-101C
41515
U. S. AIR FORCE
A/C of C.O. of 9th Air Force, 1957
41513
U. S. AIR FORCE
Experimental paint scheme, 1964.
41514
U. S. AIR FORCE
Experimental paint scheme, 1964.
60070
U. S. AIR FORCE
66th TFW, 32nd TRS, RF-101C

F-101B/F and the RF-101G/H.

We will cover that next month. The Interceptor F-101Bs were a colorful bunch and the version most of us saw most frequently. So, stay tuned.

Notes: the RF-101s spent most of their time in Viet Nam in the now familiar Southeast Asia camouflage. While their time in camo Was significant, any individual markings other than two big letters on the vertical tail is all there was to tell any of them apart. I tend to get very bored quickly when drawing camouflaged airplanes. Thus, you probably won't see many of them here.

Operation Sun run RF-101C Voodoos

1957 was a good year for the U.S. Air Force. The new Century Series aircraft were finally reaching maturity and squadron service, and Strategic Air command were just starting to receive the KC-135 tanker. That would put real world-wide capability in the bomber force. In May of that year the 363rd Tactical Reconnaissance Wing at Shaw AFB, South Carolina, started receiving the first of their RF-101As. USAF headquarters recognized that the new Voodoos and KC-135s could break records. The Voodoo was the first Air Force Fighter equipped with the flying boom capability. This allowed much higher fuel transfer rates than the more commonly used hose and drogue system. While the older KC-97s and KB-50s struggled to climb much above twenty thousand feet the KC-135s would zip right along at 35,000. First up was an attempt to establish a new coast-to-coast speed record, both West to East and East to West, and round trip. Like all military efforts, this one needed a catchy title, and this one became Operation Sun Run.

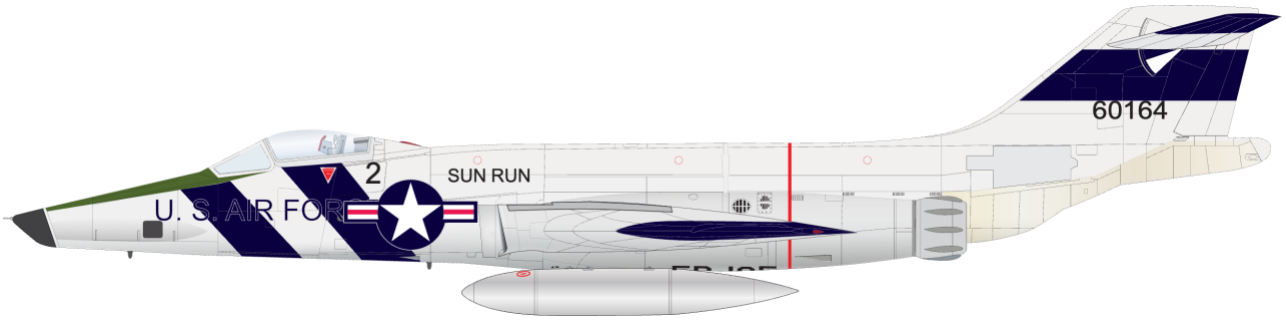
The plan was to use six aircraft, two would fly one way, two would do the round trip and two would serve as spares in case of problems on one of the primary aircraft. Six RF-101As deployed from Shaw to George AFB, Calif. On Oct.14th 1957. As mentioned above, the boom refueling was new to TAC and critical to the establishment of any new record, so considerable time was spent practicing with the new tankers. McDonnell had established a basic flight profile that would be used for the record attempt. The profile planned for an afterburner takeoff from Ontario International Airport, leaving it in afterburner until leveling off at 45,000 ft. Staying in AB until starting a decent to 35,000 ft. for refueling at around Mach 0.8 then hitting the burner again and repeating the process. The plan was for four of these refueling cycles eastbound, each over a track of about 100 miles. The westbound track also included four tanker cycles, but these were to cover only about 80 miles each. Time between tanker cycles was estimated to be a very short 26 minutes.

During the work up at George the original RF-101As were replaced by brand new RF-101Cs. As an indication of the significance of this Air Force record attempt is that these birds came directly from the factory and were the second thru seventh RF-101Cs built.

The actual record attempt was scheduled for Nov. 27th, 1957. The plan was for two waves. The first aircraft, the round-trip attempt, would leave Ontario IAP five minutes ahead of the one-way aircraft. The spare would depart 10 minutes after the one-way attempt and follow until after the first refueling. If either one or two had no problems, the spare would turnaround and land at March AFB, just east of L.A.

Sun Run #1

Capt. Ray Schrecengost lift at 06:59.57 and flew to Floyd Bennett, New York in 3:15.41, turned around and returned to Ontario in 4:01.26. Total time was 7:17.07. He had some controller confusion and fuel problems that slowed him a bit.



Sun Run #2

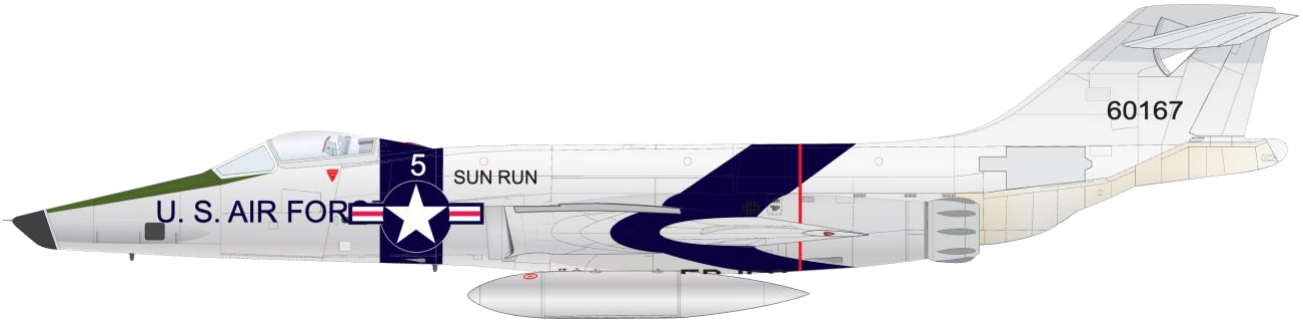
Capt. Robert Kilpatrich lost the use of his wing fuel and had in-flight refueling problems and had to descend to 14:000 ft on one refueling and had to manually find the tanker on another refueling when controllers lost both him and the tanker. Despite all this, he reached New York in 3:11.39, about four minutes faster than #1.

Sun Run #3

Capt. Don Hawkins, the first wave spare, had the fastest time to the first tanker, but neither #1, or #2 aborted, he was out of the race. Refueled and landed at March AFB.

Sun Run #4

Capt. Robert Sweet, left at 07:50.38. A flawless aircraft, no controller problems and maybe some luck — allowed Sweet to establish a new East to West and round-trip record of 3:36.22 and 6:46.36.



Sun Run #5

Lt. Guntav R. Klatt, post the record to New York. His time was 3:07.43. Again, he had controller problems and at one point had less than 500 lbs. of fuel when controllers did not position him properly.

Sun Run #6

Capt. Robert Burkhart, the second wave spare, hit the first tanker and since #4 and #5 were on their way With no problems he took on only enough fuel to return to March AFB. Modeling notes: Some artwork and photos of Sun Run #1 show the name “Cin-Min” under the cockpit. And a large TAC emblem on the Spine of the aircraft and an 18th TRS emblem on the nose. The name was the first three letters of Capt. Schrecongost’s two daughters.

It is my belief that these were added after the record setting effort. The name “Sun Run” stayed on the a/c long after it was repainted In 363rd TRW markings.

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Northwest Scale Modelers (NWSM)

The Northwest Scale Modelers meet monthly at the Museum of Flight in Renton. Modelers of all genres are welcome to attend. Please see their website for more information: [NorthWest Scale Modelers (nwsm.club)]

Seattle Armor Modeling and Preservation Society (AMPS)

The Seattle Chapter of AMPS holds monthly meetings and occasional build sessions that modelers of all genres are welcome to attend. Please see their Facebook page for more information.

Galaxy Exiles Sci-Fi Modelers

The local Sci-Fi modeling community is served by this club located in the North End. Modelers of all genres are welcome to attend. For more information, please contact John Morel at johncmorel@gmail.com or see their Facebook page for more information.

Performance Model Club

The Performance Model Club meets every third-Saturday of the month at the Mt Vernon Roundtable Pizza from Noon to 2:00pm. All modelers are welcome to bring their recently completed models (or ones in work) to 'show and tell.' We have several that drive all the way from West Seattle and Renton as well as from Bellingham. We purely talk models, techniques, etc. With an average attendance of 6-10 at each meeting, we are not prepared to sponsor another PMC Model Show yet, but who knows what might be possible if this club grows!

Questions? Feel free to contact David Kaneshiro – kaneshiro.david@gmail.com or call/text 206-601-1351.

Upcoming Events

July

12 — Sprue-Man Group Model Swap Meet - Vancouver, WA

August

6-9 — IPMS Nationals - Hampton Roads, VA

16 — Kit Auction - Oregon Modelers Society - Portland, OR

September

20 — Oregon Modeler's Jamboree - Linn County Expo Center - Albany, OR
Oregon Model Show and Contest - hosted by Oregon Mid-Valley Modelers

October

4 — Fall Show - IPMS Palouse Area Modelers - Moscow, ID

11 — Scale Model Fest - Bonsor Recreation Complex - Burnaby, BC, Canada
IPMS Vancouver Annual Fall Show

TBD - Fall Show - IPMS Boise - Boise, ID

During (and since) the Pandemic, modelers from all over have been meeting online via Zoom sessions. Between our two local clubs, (IPMS and NWSM), the TNI group, the Galaxy Exiles, plus IPMS clubs in Oregon, there are Zoom meetings just about every night. These sessions are joined by other modelers from across the country, as well as overseas – I think St. Petersburg is the farthest way? These are less meetings than simply build sessions where we share ideas, techniques, etc. – like a bunch of little old modeling ladies. We discuss our current projects, how to solve modeling problems, new techniques, tools, paints, and kits. We try to keep politics and religion out of the conversations, and that really makes the sessions fun and relaxing. These Zoom sessions are open to everyone. The Monday/Wednesday/Thursday sessions normally have between 8 and 15 attendees at any given time, and the big (Thursday) build sessions last 7 hours (2pm through 9:00pm). Modelers come and go, break for dinner, or to walk the dog, etc. The build sessions continue in the background, allowing modelers to join at their convenience.

A lot of modelers with a wealth of experience who can help solve just about any model-related issue. And a great group of people!

Joining a Zoom session takes a single click of a mouse, once you are all set up. First, it is recommended that you download a free copy of Zoom and install it on your device first. Having a local copy is not required but makes everything a little easier to use. Once that is done, all you need is a very basic setup that includes camera, microphone, and speakers (normally all built-in, especially with newer devices). Then just click on one of the links below!

Mondays: Seattle. WA IPMS 2pm – 5pm LINK

Tuesdays: Salem, OR IPMS 6pm – 10pm LINK

Wednesdays: Seattle. WA IPMS 2pm – 5pm LINK

Thursdays: Seattle. WA IPMS 2pm – 9pm LINK

Albany, OR IPMS: Odd-numbered Thursdays (i.e., 1st, 3rd, and 5th) from 6pm - 10pm. LINK

Saturdays: Salem, OR IPMS 6pm – 10pm. LINK

Sundays: 4:00pm CDT-5:00pm CDT. LINK

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The IPMS Seattle 2025 meeting schedule is as follows. All meetings are on Saturdays at North Bellevue Community Center 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.

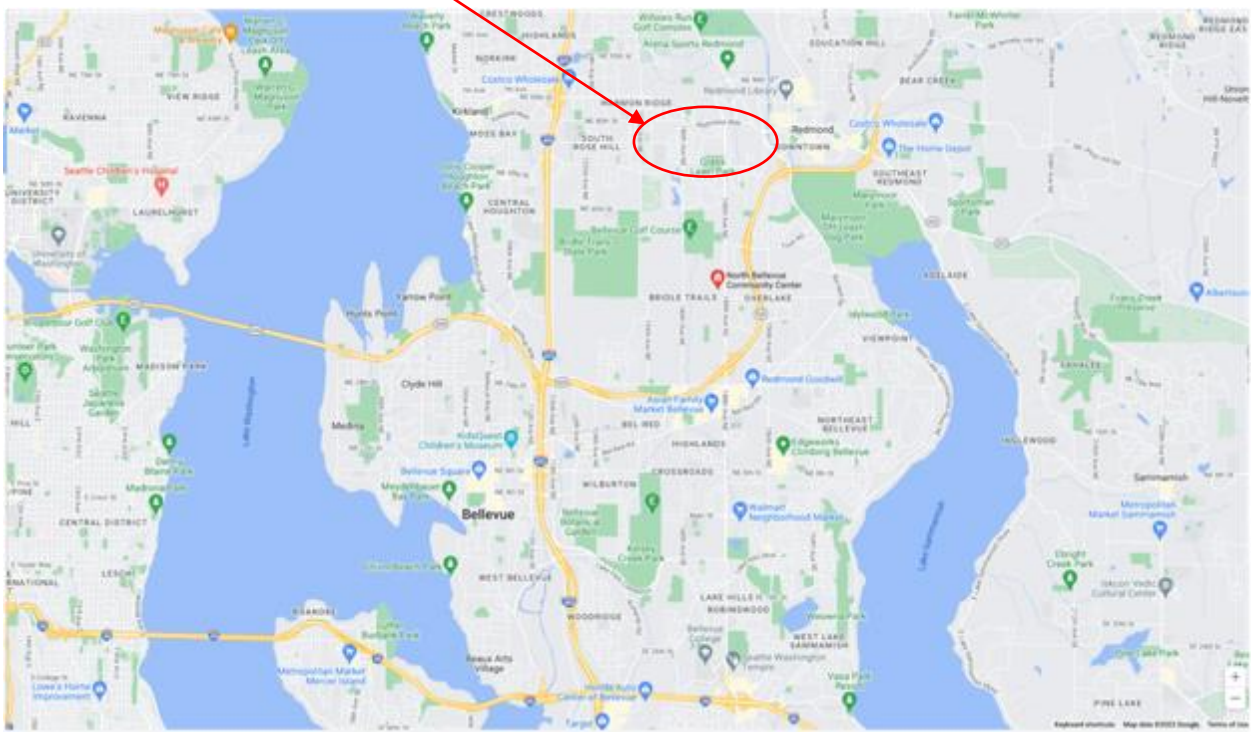
July 12, 2025 **August 9, 2025** **September 13, 2025** **October 11, 2025**

Next Meeting: July 12– 10:30 AM to 1:00 PM

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

Map Link Site Link

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.

Join IPMS/USA

Why Join IPMS/USA?

IPMS/USA is the United States Branch of the International Plastic Modelers' Society, whose roots can be traced to the startup of the first IPMS National Branch during the 1960's in Great Britain. In 1964 a US-based modeler applied for a charter to start the US Branch. In the ensuing five decades, IPMS/USA has become a 4,600-member, all-volunteer organization dedicated to promoting the modeling hobby while providing a venue for modelers to share their skills in a social setting, along with friendly but spirited competition in the form of local, regional, and national contests and conventions. As this is written, there are over 220 active US chapters (including groups in Canada and the Philippines as well as one "cyber-chapter" existing entirely on the internet). These chapters are organized into 13 geographically-determined Regions, overseen by Regional Coordinators. The IPMS/USA Executive Board, made up of elected and appointed members, serves as the overall governing body for IPMS/USA.

Join Online (https://myipmsusa.org/join-us)

MODEL PAINT SOLUTIONS

Model Paint Solutions specializes in tools for handling, storing, mixing, spraying, and finishing model paints. We carry quality scribing tools, abrasives, Mission Models Paint, the full line of AK Real Colors, and German-manufactured Harder & Steenbeck airbrushes and parts. All Seattle IPMS members can take advantage of 5% off and Free-Shipping on any orders delivered during the monthly IPMS meetings. Details provided at the meetings.

Model Paint Solutions (https://modelpaintsol.com/)

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