

# The Navigator

The Newsletter of Alamo Squadron

*The San Antonio chapter of the International Plastic Modelers' Society  
A registered 501c-7*



February 2018

IPMS/USA Chapter of the Year:

1998-1999 & 2004-2005

IPMS/USA Regional Chapter of the Year: 2016

## Alamo Squadron's 2017 Model of the Year



**1/35 Tamiya Cromwell Mk. IV by Dana Mathes**

**What!? A Model Made  
Out of Paper?**



**Dick Shows Us How**



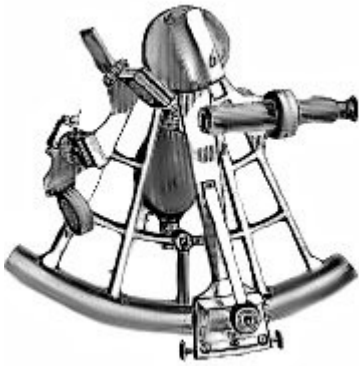
**All Hands On  
Deck!**

**17 Days Until  
ModelFiesta 37**

**Eric Chops Up His  
'Greased Lightning'  
Cockpit...**



**...And Turns It  
Into A Winner!**



# President's Column

By Len Pilhofer

IPMS #49932



## President's Message: February, 2018

February, as most of the club knows, is THE big month for Alamo Squadron. It is the month of one of the biggest chapter shows of the entire IPMS/USA. The reason for success year after year is the commitment of its members, i.e. you guys.

A little less than a year ago one of IPMS/USA Abilene's club, Kelly Jamison, attended **ModelFiesta 36**. I am going to quote, word-for-word, the review Kelly wrote as posted to [www.cybermodeler.com](http://www.cybermodeler.com):

*"Well the Alamo Squadron, IPMS San Antonio did it again! They put on a fantastic contest. The sign in process went very well with plenty of tables to work from, plenty of entrance forms, clear instructions on what to do, great and I do mean great, volunteers working very hard to get everything done and easy to follow path to get your models on the viewing tables. The tables were elevated to just the right height to ease viewing and keep little hands away."*

*"The vendor's area was busy with great deals to be made. Some brick and mortar stores brought out their best and some private collections were being thinned with a great variety of kits and supplies to be found for any modeler of any genre."*

*"The awards portion of the show flowed naturally, quickly and with minimum mistakes. I was pleased to see the announcer call up the three winners at the same time for the category then award the individual their plaque. It seemed to increase the speed and flow of the ceremony and decrease that awkward pause as someone makes their way up to the front. Very well done!"*

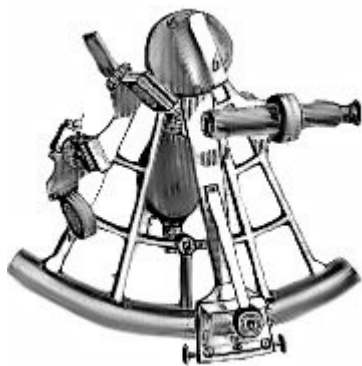
*"I can't say enough about the positive attitudes of the club members and how hard they worked to put on a great show for us. I never heard a negative word or saw anything but good people doing their best. I would easily call the Alamo Squadron one of the top 10 clubs in the States."*



The words that I am most proud of in this review are "good people doing their best.". I am extremely proud to be member of an organization that is so committed to giving back to the modeling community and volunteering many, many hours that they could otherwise be spending on their benches building models. This is a level of professionalism rarely seen in the hobby today.

With less than three weeks 'til showtime the club already has a commitment of 75% of it membership to ModelFiesta 37. With this "all-hands" attitude MF37 is on track to break more records in attendance and model entries...I am looking forward to another great show!





# Club Announcements

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## February Meeting Agenda

The agenda for February's meeting (scheduled for Thursday, 1 February, 2018) has been changed to a **Swap Meet**. If anyone wishes to thin their stash of kits and modeling related supplies, please bring them to Thursday's meeting for the club to see, possibly purchase and take home with them. We will also be spending considerable time on ModelFiesta 37 preparation.

## Kit of the Month

During the January meeting the new "Kit of the Month" program was rolled out. Each month a member will bring one of their recent acquisitions and open it to let others peek inside the box. With a few brief comments and few questions answered, we will get to know what's in the box and if we will rush home to order a copy. When you are ready to present, contact and coordinate with Craig Gregory; 541-377-188, [craig.jonathan.gregory@gmail.com](mailto:craig.jonathan.gregory@gmail.com).

## Bachelor Build Nights

The focus of these gatherings is to build models as well as comradery with a secondary goal of watching, discussing, and learning different techniques. There will be no official club business at these meetings; only modelers sitting with their kit, building it, and talk-

ing about any topic you desire. Each build night will run from 5-9 PM.

All dates fall on a Thursday night. If you wish to host a BBN please let Len or Craig know and we can add to the dates listed here. Build night dates for the rest of 2018 are as follows:

8 Feb @ Craig's	22 Feb @ Len's
8 Mar @ Craig's	22 Mar @ Len's
12 Apr @ Craig's	26 Apr @ Len's
no BBN	24 May @ Len's
14 Jun @ Craig's	28 Jun @ Len's

## Monthly Contest Schedule

The internal club contest schedule for the rest of the Alamo Squadron year (up through the next elections) are as follows:

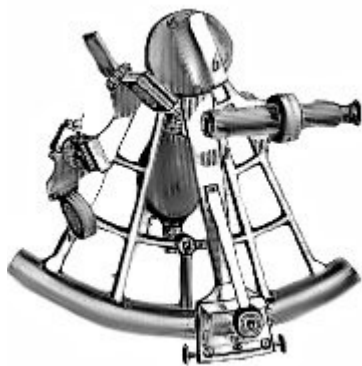
1 Feb	<b>Marines</b>
1 Mar	Open
5 Apr	Open
3 May	<b>Quarterly: TBD</b>

## Web Page Bios

This is a way for members to learn a little bit of modeling-related information of their club mates in order to facilitate the sharing of knowledge and techniques in modeling genres and areas. In no way is this mandatory and only if you wish to share your info with other club members should you participate. Be aware that whatever we post on the webpage is public to the world...there are no security controls on our website. If you wish to have your bio published please reach out to Len at [president@alamosquadron.com](mailto:president@alamosquadron.com).

Here is a link to the bios already on the site: [alamosquadron.com/members.html](http://alamosquadron.com/members.html).





# Club Announcements

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## 2017-18 Model Building Summit Award

The end of the 2<sup>nd</sup> Annual Model Building Summit Award ends with the 2018 March meeting. This means there are still 2 meetings to bring you projects to a meeting and enter the program. Here is the count of models completed and entered so far:

Builder Name	#Completed
Rob Booth	5
Paul Blackmon	1
Michael Booth	14
Lee Forbes	2
Craig Gregory	6
John Kress	3
Dana Mathes	4
Devon McCollough	1
Dick Montgomery	8
Peter Ortensie	1
Len Pilhofer	10
Jerry Reyes	1
Herb Scranton	5
Marc Smith	1
Jerry Escobedo	1
Ronald Steward	3
Charles Stone	2
Eric Syverson	2

It is simple to participate:

- Bring you completed model and enter it in a WIP of monthly club contest
- Write an article for the Navigator
- Present and/or demonstrate at a club meeting
- Fill out the entry log.

*Prizes and recognition program during the March meeting.*

## Plastic Modeling

## Adult Building Course

Spring 2018 Project - Revell's Imperial Star Destroyer

IPMS/USA Alamo Squadron hosts the Spring 2018 ABC class. The Adult Building Course teaches basic plastic modeling skills and techniques through demonstrations while students build the course project.

This ABC series will emphasize airbrushing. During the 4 week course, participants will build the Imperial Star Destroyer, correct a few kit flaws and use an airbrush to paint the model and highlight surface detail.

**Dates:** Saturday's March 3rd, 10th, 17th and 24th

**Time:** 10:30am thru 12:30pm

**Location:** Hobbytown USA, 2501 NW Loop 410

**Web Site:**

<http://alamosquadron.com/build-class.html>

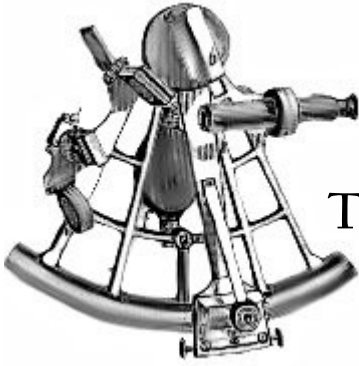
**ABC Coordinator:**

Craig Gregory

[craig.jonathan.gregory@gmail.com](mailto:craig.jonathan.gregory@gmail.com)

541-377-1888





# Cover Story

## 2017 Model of the Year Tamiya 1/35 Cromwell Mark IV Tank

Model, Story by Dana Mathes  
IPMS# 43781



Photo: Craigory

### History

British tank doctrine before and during the Second World War included the need for a cavalry or cruiser tank, a vehicle that was speedy and possessed firepower such that it would have the ability to strike deep and disrupt enemy formations. Between 1934 and 1945, the British army attempted a progression of eleven designs for these cruiser tanks. The most successful of these programs began in 1941. After witnessing the superiority of the German panzers to the incumbent English and French vehicles, the British army issued a specification for a heavier tank with a larger gun. This effort produced two versions of essentially the same tank based on a pair of different power plants. Known

as the Centaur and the Cromwell, the first tank was equipped with a Nuffield Liberty engine (395 BHP) whereas the latter vehicle was mated with the venerable V-12 Merlin aircraft engine (600 BHP, named the Meteor engine). The Cromwell proved to be highly reliable, but the Centaur was found to be problematic and underpowered. With its poor performance, the Centaur was relegated to training and specialist roles, while the Cromwell became the primary British tank. The Cromwell was initially produced with a 57mm gun, but in the later Mark IV version the armament was upgraded to a harder-hitting 75MM.





# Cover Story

## 2017 Model of the Year



The Cromwell entered service in October, 1943 (See below Winston Churchill inspecting one of the new tanks). In all, over 4,000 Cromwells were produced by the end of WWII, with some seeing postwar service. The new tank weighed 28 tons and was capable of reaching 40 mph (ungoverned) on improved roads and 18 mph in open country.



The Cromwell first saw combat during the 1944 Normandy invasion and was a mainstay of the British Armoured units in the Western Theater for the remainder of the war. The new vehicle acquitted itself well, proving to be roughly equivalent to the American Shermans and German Panzer IVs. Contemporary photographs frequently depict the Cromwells with a plethora of spare track, supply cartons, and other gear stacked all over them. The field pictures usually show them with some amount of camouflage; hessian tape, foliage, or netting or a combination thereof, applied to their hulls, turrets, and barrels.

My model depicts one of the Cromwell Mk IV tanks in the famed British 7th Armoured Division, the Desert Rats, which fought in Normandy and other battles of the Western Front.

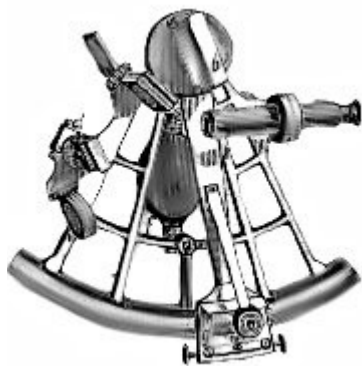
### The Kit

The base kit for this project was the 1997 1/35 Cromwell Mk IV by Tamiya (35221). I had never built a model of a British military vehicle before. This kit was gifted to me and I found it interesting, so I thought I'd give it a try. The kit is well designed with generally good fits and little flash. Two versions, which consist of only a few different suspension details, are provided for. Decals are provided for several unit marking variations.



### Detailing the Model

I chose to build the vehicle with the external track tensioning system. Supplementing the kit were after-market details: a metal barrel (Barrel Depot), a photo-etch detail kit (Eduard), and individual link tracks (Friulmodel). Based on the field photos, field modifications were sometimes made. Accordingly, using plastic rod and sheet stock, I scratch-built two features: a track storage rack across the front glacis plate and a bracket for stowing a spare road wheel on the back of the turret. The road wheels (but not the after-market spare) were chipped to show wear.



# Cover Story

## 2017 Model of the Year

In the spirit of showing a warhorse, I wanted to depict a Cromwell with lots of stowage. To accomplish this, I added a Cromwell accessory kit (Black Dog) and many items from my spares box, including a “liberated” coal stove (from a Verlinden accessory set for a Chaffee tank). The Black Dog kit included tarps, a spare road wheel, and many supply boxes. It was difficult to get the resin accessory pieces to fit correctly on the model and this required a great deal of sanding, filling, and try-and-error fitting, particularly for the large item on the rear deck.



The other details that were added consisted of: antennas, tow cables, a power cable for turret spotlight, chain, tie down ropes, and camouflage netting (Verlinden). The netting was first painted. It was then soaked in dilute white glue, positioned on the model, and allowed to dry. The excess glue and water was removed with cotton swabs.

All of the extra track links were used for secondary armor (spare track). Experience has taught me to not attempt to glue the chain to the model so I simply draped it across the spare track on the glacis plate. The two tow cables were made from purchased twisted metal cable and the ends provided in the kit.

Much of the stowage was painted and glued onto the model at points during the weathering steps described below. In hindsight, the stowage, because of its quantity, became almost a second project.

### Decals and Finishing

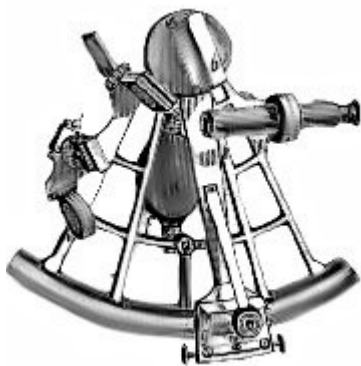
The decals on the tank are all from the kit-supplied sheet. They went on well with only a little help from decal solvents. The markings are those of the Desert Rats. I chose to not add the IFF star on the top of the turret as I saw some pictures with it and some without.

The model was primed with Tamiya gray primer and then shot with a pre-shade of black-green. I used the Tamiya paint mix recommended on the instruction sheet to get the correct base color. This base color was applied and allowed to dry. Later, I sprayed the model with ten different shades of that color in semi-random patterns, each with successively a bit more flat white or light gray in order to achieve color modulation and lightening on the middle of the various panels. Only the first three of these shades were applied to the lower portions of the hull as they would not see as much paint degradation due to sunlight and for artistic presentation. Once this procedure was complete, I post-shaded some of the panel lines with a slightly darkened shade of the base color. Paint chipping was then done sparingly with five different colors using a fine brush.



Next the model was sprayed with Future, the decals were applied, and the miscellaneous details painted. Another coat of Future was applied to seal and protect the decals and base color coats from the oil washes. Oil washes came next and were applied in this order: raw umber filter, a dot matrix of several colors for





# Cover Story

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## 2017 Model of the Year

streaking, Payne's gray and raw umber pin washes on details, dots of thinned black oil paint for oil and grease stains, and a thinned amber-rust colored mix for gas stains. Light weathering was then done with multiple shades of dry-brushing, pastel chalks, and artist pencils. Some edges and details were highlighted with a graphite pencil or dry brushing with various metalizer paints. The final step was to overspray the entire model with a dilute mixture of Testor's Dullcote which had a touch of ModelMaster Tan added to it.

### Final Thoughts

The Cromwell tank is infrequently seen at model contests and seldom gets its historical due, perhaps because of our American attachment to the storied Sherman. There are several kits and many accessory parts available for this subject. I enjoyed this project and would recommend the kit to others.

### References

Jackson, Robert. *Tanks and Armored Fighting Vehicles: Over 240 of the World's Greatest Vehicles*. Bath, UK: Parragon Publishing, 2007.

Ware, Pat. *Images of War, British Tanks: The Second World War*. Barnsley, South Yorkshire, England: Pen & Sword Books Limited, 2011.

Wise, Terrence. *D-Day To Berlin: Armor Camouflage and Markings of the United States, British, and German Armies, June 1944 to May 1945*. Carrollton, TX: Squadron/Signal Publications, 1979.



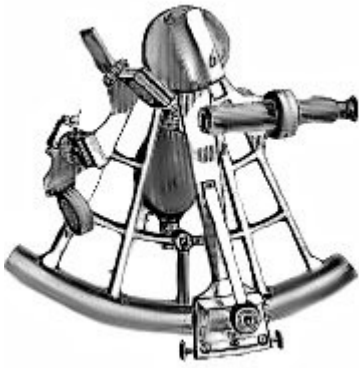
Photo: Len Pilhofer



# Kit of the Month

Presented by Lee Forbes

IPMS #2297



## B-52D/F Stratofortress

Manufacture: Minicraft Model Kits

Product / Stock #: B-52D/F / #14734

Scale: 1/144

List Price: \$49.99

Web Site: <https://minicraftmodels.com/products/14734-b-52d-f-stratofortress-new-tooling-includes-clear-display-stand>

First off I want to applaud the E-Board for introducing this novel idea as part of our Meeting Format for this year. The kit that I plan to review at our February 1 meeting is the new 1/144 scale Minicraft B-52D/F. I may be best known for admiring and building 1/72 scale variants of the Supermarine Spitfire/Seafire, but I've always had a soft spot in my heart for the Boeing B-52, Stratofortress, series. Maybe it was because my first (Glasgow AFB, MT) and second (Anderson AFB, Guam) assignments in the Air Force were Strategic Air Command (SAC) bases that were equipped with the B-52 D/F "tall tail" versions of the big bomber and seeing it in action on the Island of Guam when the bombing of South Vietnam began in 1965 as part of Project ARC LIGHT. When fully loaded a B-52D could carry 108 M 117 750 pound iron bombs internally and on pylons under the wings. Later in December 1972 some 200 B-52Ds andGs based on Guam and in Thailand started bombing North Vietnam around the Hanoi area during Operation LINEBACKER II. The total destruction experienced by the North Vietnamese during 11 days of almost continuous bombing a total of 729 were flown, that brought their delegation back to the conference table in Paris and soon resulted in them releasing our POWs who were brought home in March 1973. During Operation LINEBACKER II a total of 15 B-52s of all types and



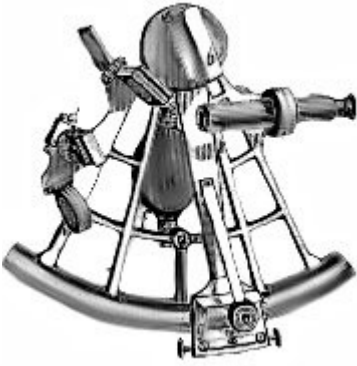
their crews were shot down, with most crews being killed in action. Only a hand full of downed crew members were taken prisoner and those captured returned along with the other POWs after only a short stay in the Hanoi Hilton.

Prior to Minicraft bringing out this new kit we only had Monogram's 1/72 scale model of the B-52D, the 1/100 scale Tamiya B-52D and the DML 1/200 B-52D from which to choose. The latter also included a B-52G and B-52H in their kit series. You may recall seeing the DML 1/200 scale B-52D that I brought to last month's "Model of the Year" Contest.

Now let's talk about the new Minicraft B-52D/F kit. The kit contains eight sets of sprues containing all of the kit components with several sets not used in the D/F kits. It's pretty obvious that the new D/F models of the B-52 were derived from Minicraft's "Cold War Version" of the B-52 H that includes the 20mm "Gatling Gun" in the tail section of the fuselage and their current "Modern Version" of the same kit sans the "gun." The latter version of the H model depicts the type of aircraft that are now part of the Air Force Global Strike Command based at Barksdale AFB, LA and Minot AFB, ND and are capable of performing

# Kit of the Month

## B-52D/F Stratofortress

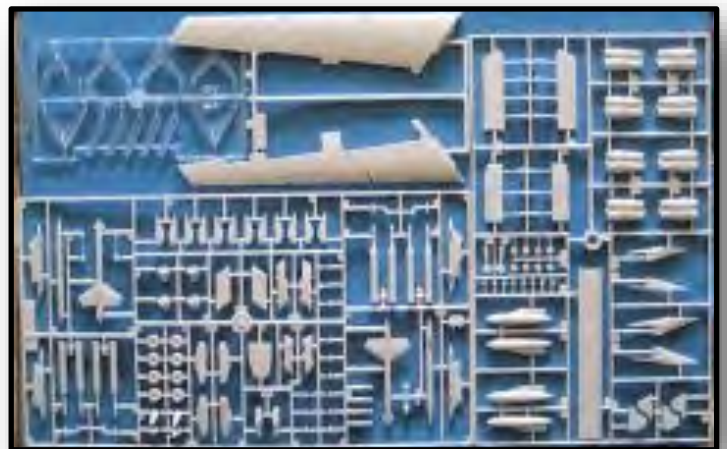


both nuclear and conventional bombing missions. The kit also contains all of the weapon types capable of being carried by any of the B-52 series. These range from iron bombs, and standoff weapons, including cruise missiles, to defensive decoys such as the “Quail” to confuse enemy radars. These can all be displayed separately or incorporated into the model on outboard pylons. The kit as described contains nearly all of the components necessary to convert either the B-52D/F to the B-52G or backdate a B-52H to the G. Maybe Minicraft has this in mind in the future since no current 1/144 scale of the B-52 G exists. The easiest conversion would be to start with the H “Cold War Version” model which already has the “short tail”, all the “ECM” antennae blisters, “FLIR and LLLTV” bulges under the nose, and the 20mm “Gatling Gun” which are all incorporated into the kit fuselage. All that’s missing would be the addition of the F engines pods, and you would have an early model of the B-52G. If you wanted to create a late model of the G, you would need to add filets, or “cuffs” to where the wing roots join the fuselage. This was designed to reduce drag and first appeared on the G models that were employed during Gulf War I. I’ve ordered both

of the Minicraft B-52 H kits from Gary and when received, I may attempt the G conversion I have in mind. More to follow.

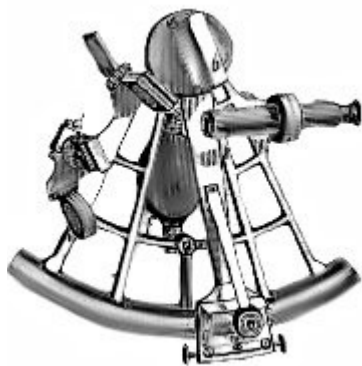
Lastly, I’d like to thank the Minicraft Company for bringing out a kit of the B-52D/F in 1/144 scale. It has been missing for a long time. The plastic used is easy to work and is light gray in color. The canopy parts are crisp and clear with raised framing which will make masking and painting much easier. Some might think the kit’s engraved panel lines may be a bit heavy, but in this scale that might be as “good as it gets.” Personally I didn’t find that to be a detractor. Minicraft’s MSRP for the new kit is \$49.99. Buy one, I think you’ll like it!

No doubt we’ll soon be seeing after-market B-52D/F decals appearing in 1/144 scale depicting some colorful nose art from the Vietnam War era. I recall seeing some “juicy” nose art while I was on Guam during the early days of Project ARC LICHT during my 1964-1966 tour on the island. There was a war going on and the standards of personalized nose art were “modified” for morale purposes...Yes, it was even allowed in SAC!





# Feature Story



## Building the Transition Region and Coronal Explorer (TRACE) Satellite Model, Story, Photos by Dick Montgomery IPMS# 14003



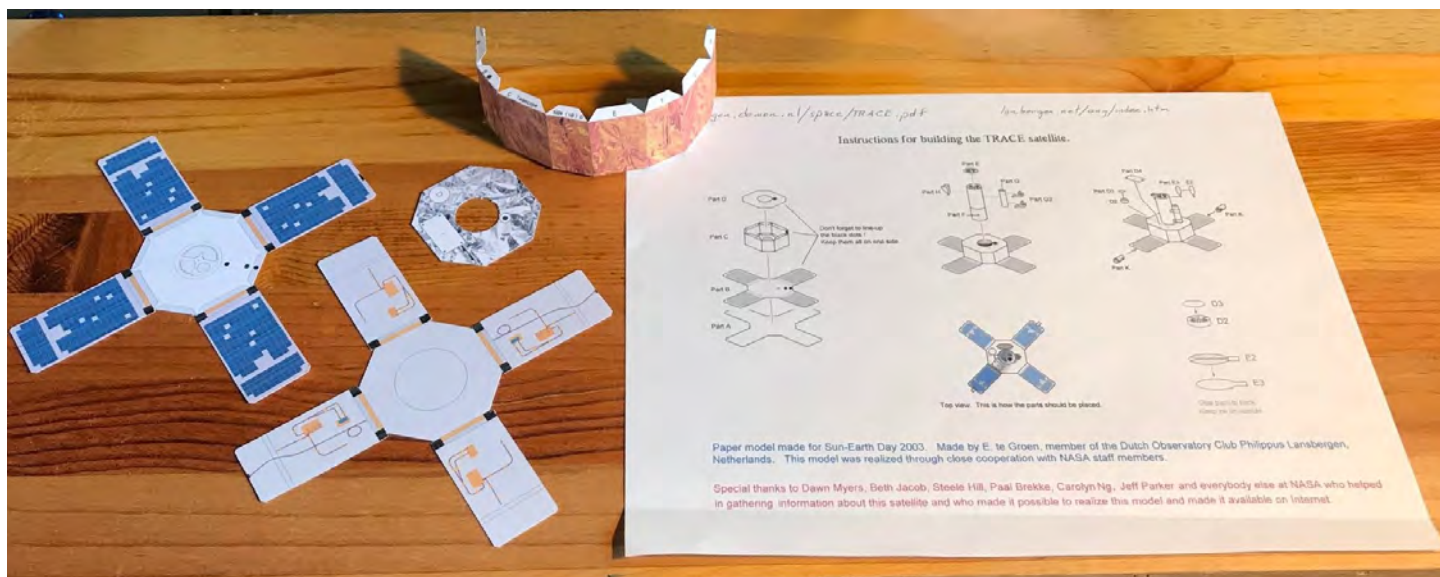
During a recent unintentional, but necessary, “lull” in my plastic modeling I decided that I needed some connection to my hobby, as tenuous as it might be. I needed to find a model that I could assemble with a minimum of tools, a minimum of space, no paint, and with the freedom to walk away from working on the kit at a moment’s notice.

After some thought it occurred to me that I had the perfect solution, that being a paper model. I had just the item in my inventory in digital form on my computer. Some years ago, I had been surfing the “net” and found a downloadable paper model of the TRACE Satellite. The model was laid out by E. te Groen, a member of the Dutch Observatory Club Philippus Lansbergen in the Netherlands. E. te Groen cooperated with several NASA staffers to create the model, and also naming others who contributed to the effort, those persons being Dawn Myers, Beth Jacob, Steele Hill, Paal Brekke, Carolyn Ng, and Jeff Parker.

The result of the work of these individuals is a model of the TRACE with 17 parts in 1/20<sup>th</sup> scale. The parts

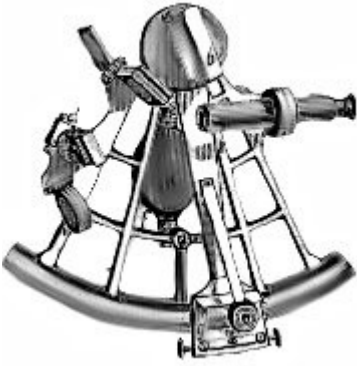
and instructions are presented on 4 sheets of paper in full color. Although it was many years ago when I first downloaded the TRACE, it is still available. Go to [https://www.nasa.gov/pdf/466117main\\_TRACEmodel.pdf](https://www.nasa.gov/pdf/466117main_TRACEmodel.pdf) and download the free 4-page pdf.

My list of tools was short. Elmer’s Glue-All was used as the only adhesive. A 6-inch metal ruler and # 11 X-Acto plus a small pair of scissors did the cutting. I used two pieces of clear glass, one as the cutting surface and the other, a piece of ¼ inch glass, as a cutting surface and weight. A few clothes pins and clamps were used to hold some parts in place while the glue was setting up. I used some toothpicks to help spread the glue into some cracks and to push glue to the seams where one part met another. Some paper towels were kept on hand to help clean up any glue spillage. Some monofilament fishing line came in handy when wrapped pieces into cylinders. Lastly, when I had to handle some of the parts I wore rubber gloves to prevent skin oil mixing with the colors printed out by my handy computer printer.



# Feature Story

## Building the Transition Region and Coronal Explorer (TRACE) Satellite



### Assembly

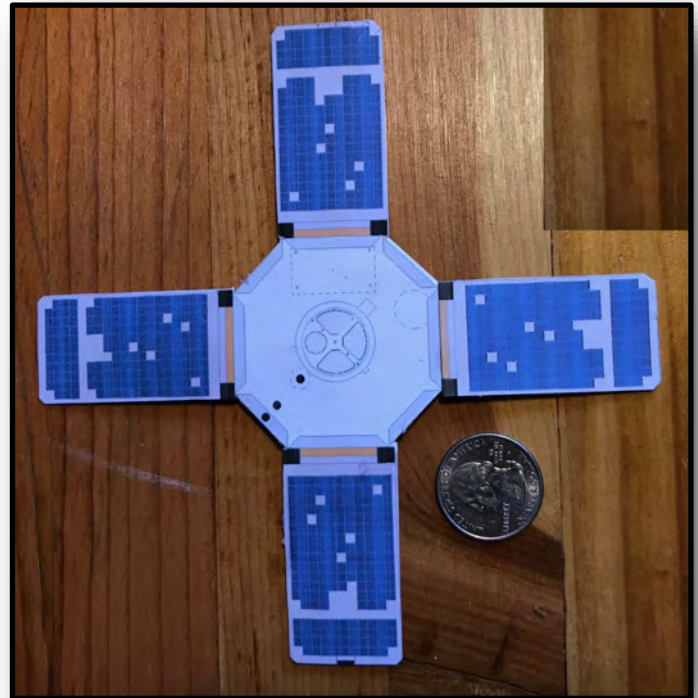
Not being familiar with assembling paper models, I probably violated some of the guidelines that more experienced paper modelers adhere to, but the project was rather simple and easily within my skill-scope. I did, after all, have a fallback position. If any part was damaged, I could simply print out a duplicate part with the expenditure of a little extra printer ink. Don't ask why I mention this bit of information.

The instruction sheet shows the various parts and how they are to be assembled. There are just a few steps involved. The first step is to assemble the solar panels. Secondly, the satellite body must be formed into an octagon. Constructing the telescope is following by assembling the sighting scope. These sub-assemblies are glued together. The only remaining parts are small fiddly bits which, despite their size, can be rather tedious to assemble. Let's take a detailed look at each of these stages in the assembly process.

### The Solar Panels

I started with the solar panels which consist of Parts A and B. I chose to cut the parts away from the carrier sheet by using the X-Acto and metal ruler as a guide. Use a sharp #11 blade and apply only a little pressure as you use the metal ruler to guide the blade along the separation lines. If you need more than two or three strokes with the knife you most likely need to replace the blade. And if you apply too much pressure with a dull blade the paper will most likely wrinkle or rip. Note that there is an "instruction" that reads, *"Don't forget to line up the black dots! Keep them all on one side."* This direction refers to a small black dot on Part B, C, and D. Use those dots to align the parts properly.

Once Parts A and B have been removed from the carrier sheet, test-fit them and clean up any edges on the

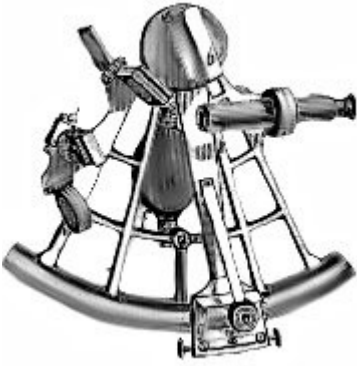


paper that show slight imperfections in alignment. When spreading the glue, I laid down a small bead toward the middle of the solar panels and then used a toothpick to spread the glue toward the outer edges. I tried to avoid too much glue near the outer edges that would be squeezed out when the parts were pressed together. My goal was to have a very thin, even layer of glue so I followed the "Less is Best" method. Once the glue was applied, I carefully aligned the upper and lower solar panel pieces, continuing to "work" the sub-assembly until alignment along the edges was achieved. I then put the part on my desk and placed a piece of glass on top of it. If any glue appeared along the edges I removed the glass, used a paper towel to clean up the glue and then replaced the glass. The glass provides just enough weight to hold the parts together. Some of the parts tend to curl a bit when drying and being left under the glass for some hours resulted in the solar panels drying without any curling.



# Feature Story

## Building the Transition Region and Coronal Explorer (TRACE) Satellite



### The Satellite Body

Preparing the satellite body, Part C, was a bit more difficult than assembling the solar panels. Part C, like all other parts, starts as a two-dimensional shape on the carrier sheet that, when folded properly, forms an octagon. After cutting out Part C from the carrier sheet, I began to carefully fold the tabs that line the upper and lower edges of the part. These tabs form the surface which will connect the satellite body to the solar panels on the lower surface and Part D on the upper surface. I used the metal ruler to fold the octagon along the lines which represent the connection points of each of the eight sides of the structure and “worked” the bends in the part gently so that it would form into an octagon. Once the structure was flexible enough to form the proper shape I applied glue to the tab on one end of what would become an octagon and bent the part so that the other end would align properly on the tab. A clothes pin or small hobby clamp will hold the part in position until the glue has set up.

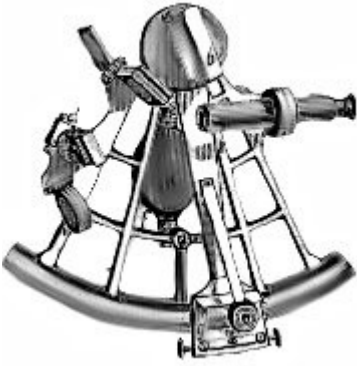


After letting the part set up overnight, I decided to add some internal structure to the satellite body to give it more strength and rigidity. Part D is the flat “top” of the satellite body and the coloring printed on it represents silver foil. Using Part D as a template, I traced the outline of Part D on a piece of 1/16<sup>th</sup> inch thick cardstock. I then cut out the shape, making a pair of supports, one for the upper portion of the satellite body and one for the lower surface of the satellite body, where it would be attached to the solar panels. The satellite body, Part C, was placed on the glass surface with the attachment tabs folded inward (see instruction sheet). One of the newly cut internal supports was inserted into the satellite body and gently pushed down to rest on top of the tabs. Once I was confident of the fit I pushed the internal support out, applied glue to the tabs, and relocated the internal support, pushing it down firmly to contact all the tabs and to form as flat and “flush” surface as possible.

The 2<sup>nd</sup> internal structure required a little more thought. It would not be possible to maneuver the 2<sup>nd</sup> internal support into position unless there was some way to grip it with a finger to maneuver it into the correct position inside the satellite body. And more importantly the 2<sup>nd</sup> support piece was the piece that would sit on “top” of the satellite body. A telescope, Part F, is supposed to be placed through a hole that must be opened in Part D, so I duplicated that hole in the center of the internal support. Once the hole was punched into the support it was easy to insert a finger tip into the hole to maneuver the support into the proper position. Glue was applied, and the assembly was set under glass to ensure a tight fit between the internal support and the attachment tabs on Part C. (Please note that Part F, the telescope actually rests on the top of Part B, the upper surface of the solar panel.) After allowing some hours for the assembly to dry, Part D

# Feature Story

## Building the Transition Region and Coronal Explorer (TRACE) Satellite



was glued into position on the satellite assembly. Once again, I used the piece of glass, placed on top of the assembly to ensure a tight fit between Part D and Part C.

### The Telescope

The next step was to cut out Part F, the telescope, and form it into a cylinder. I was lucky and found that I had a plastic rod that just happened to be the proper diameter to fit into the hole in Part D, the upper surface of the satellite body. That rod would be very useful to form the telescope into a smooth cylinder. All that was required was to cut out the telescope and, using the rod as internal support, form the telescope into a cylinder. The telescope was glued around the rod, but not to it. There was no need to attach the telescope to the rod as the fit was sufficiently tight so as not to require any adhesive. The telescope component was slid along the rod to ensure that the top of the rod and the “top” of the paper telescope part, Part F, were aligned. The tabs on Part F were flattened down and

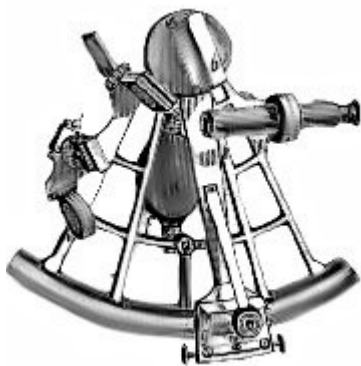
glued to the flat top of rod, with the assembly being slid into the satellite body and glued into place. Be aware that there is only one “right” way to orient the telescope when inserting it into the satellite body. There are no locating pins as with plastic kits. Instead of locating pins, there are some markings on the telescope part that serve as alignment aides. Look at the telescope and you will notice two grey rectangular outlines along the edge of the “scope”. Now look at the instruction page and the purpose for those rectangles becomes clear. There are two “straps”, Parts G2, that will secure the sighting scope, Part G, to the telescope body, Part F. Those straps are to be glued on the two rectangles. Once the sighting scope is in place it will hide the seam line on the telescope, or at least, most of the seam line. Also note that the base of the sighting scope will be located on that black dot on Part D, the upper surface of the satellite body.

### The Sighting Scope

I find that cylinder shapes, especially those with a small diameter, are a bit tricky, and even smaller in diameter than the telescope is Part G, the sighting scope. Once again, I was in luck, finding a wood dowel 1/8 inch in diameter, just the right size for the sighting scope. I also reprinted the sighting scope on regular typing paper rather than using the piece that had already been printed on the card stock. The card stock was just too thick to form the sighting scope with ease. The locating tab on Part G was glued to the dowel and allowed to sit overnight. The next morning it was a rather simple task to wrap the sighting scope around the dowel. I used some fishing line to wrap around the assembly to help it conform to the dowel and after just a few minutes the paper part had accepted the “curve” that the fishing line had helped maintain. Spreading glue on the sighting scope’s “interior” surface, I once







# Feature Story

## Building the Transition Region and Coronal Explorer (TRACE) Satellite

again wrapped it around the dowel (not that previously having glued the sighting scope to the dowel using the locating tab on the sighting scope prevented the part from shifting or moving), wiped away any glue that was squeezed out, and then wrapped the assembly with the fishing line to hold it in place. It did not take too long for the glue to set up sufficiently to move to the next step. There are two Parts G, which represent straps which bind the sighting scope to the telescope. The “straps” were attached to the sighting scope and the glue was given some time to set. Using some tweezers, the straps were bent to facilitate their attachment to the telescope.

### Fiddly Bits

All that remained was to prepare and attach some of the fiddly bits. If you have yet to attach Part 3, the “lens” of the telescope, now is the time to do so. Parts E2 and E3 form the telescope “lens cover”. It took only five minutes or so to remove those parts from the carrier sheet, glue them together as the instruction sheet shows, and then attach the lens cover assembly to the telescope. Be sure to reference the “Top View” of the TRACE found on the instruction sheet for placement of the lens cover and other small bits.

Parts D2 and D3 form a small “hockey puck” disk that fits on the upper surface of the top of the satellite. There is a circle printed on the satellite top that indicates where this disk is to be attached. You’ll find that part D2 requires some delicate handling to remove it from the carrier sheet and then some patience when folding it into the proper shape. Part D4 is a “flat plate” and is the easiest part to prep and also to attach.

My least favorite part was Part H, a small irregularly shaped part that was a little stinker to get folded properly. Finally, there are two small cylinders, Parts

K, that must be formed and glued. Use that same 1/8” dowel to form Parts K into a cylinder and then follow the instructions to cut two slits into each Part K and then mount them on the proper solar panels.

The TRACE was a relatively easy paper model to assemble and a good starting point for the “paper rookie”. The instructions were well designed and very useful, and the parts seemed to fit well. I’d say building this paper kit was not rocket science, but, actually, it was!

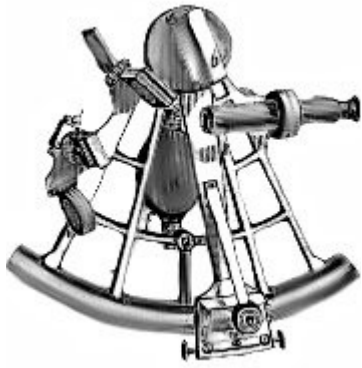
### References

Images of the Sun captured by TRACE are available at <http://sdownwww.lmsal.com/TRACE/POD/TRACEpodarchive17.html>

More information and images from the TRACE mission are available at <http://sdownwww.lmsal.com/TRACE/POD/TRACEpod.html>

The Transition Region and Coronal Explorer, TRACE, is a mission of the Stanford-Lockheed Institute for Space Research (a joint program of the Lockheed-Martin Advanced Technology Center's [Solar and Astrophysics Laboratory](#) and Stanford's [Solar Observatories Group](#)), and part of the NASA Small Explorer program. More information on TRACE and other TRACE images can be found at [http://www.lmsal.com/TRACE/Science/ScientificResults/trace\\_cdrom/](http://www.lmsal.com/TRACE/Science/ScientificResults/trace_cdrom/)

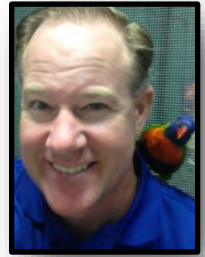
An excellent reference illustration of TRACE, identifying the various components of the satellite can be seen at [http://www.lmsal.com/TRACE/Science/ScientificResults/trace\\_cdrom/html/sc\\_details.html](http://www.lmsal.com/TRACE/Science/ScientificResults/trace_cdrom/html/sc_details.html)



# Feature Story

## Cockpit Chop Shop Part I Greased Lightning Style

Story and photos by Eric Syverson IPMS# 50324



I've been working on Trumpy's P-38 for quite a while now. It's been a real character builder. But not in the painful sort of way one might think. The time I've allotted to this build (I am a self-admitted slow builder—it's the first step to recovery I hear) is the result of an attitude I've just kind of settled into. I've realized how much I can learn here and I'm going to enjoy the journey.

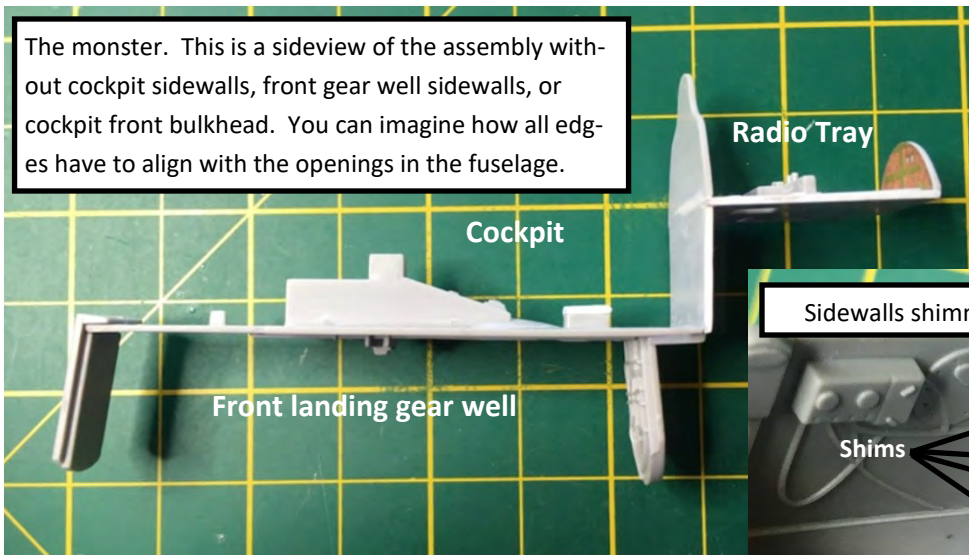
I am currently working on the large assembly piece that contains the cockpit, radio tray, and front wheel well assembly all in one. The assembly is a dry fit and shim intensive monster. Why? Because it involves four sidewalls and six bulkheads, all at different angles, all having visible alignment requirements with

highly visible cockpit area. So please join me on this, Part I of Greased Lightning's cockpit chop shop.

During dry fitting using strips of Tamiya tape I realized that the front and rear bulkheads of the front gear well had to be shimmed slightly to achieve the angles necessary to match the well openings. I had to do the same to the radio tray to angle it upwards to fit against the fuselage at the extreme rear of the cockpit. But the biggest change was the

need to move the cockpit sidewalls up and out a millimeter and adding surface area to the edge of the radio tray. This was all accomplished by spot CA-

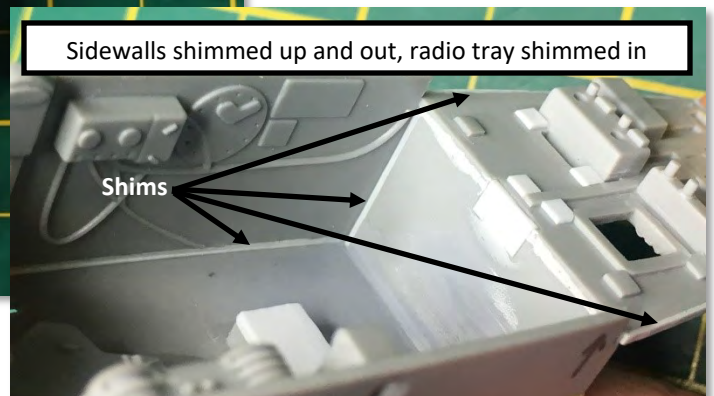
The monster. This is a sideview of the assembly without cockpit sidewalls, front gear well sidewalls, or cockpit front bulkhead. You can imagine how all edges have to align with the openings in the fuselage.



prominent openings in the front fuselage- front to back, side to side, top to bottom. I have a theory that if I can make the internals of this plane sit perfectly inside the fuselage pieces, then everything around it will be straight—including the twin booms. I've decided to combine kit plastic with Eduard PE with Verlinden resin with basic wiring to learn how they all can work together in an attempt to capitalize on the

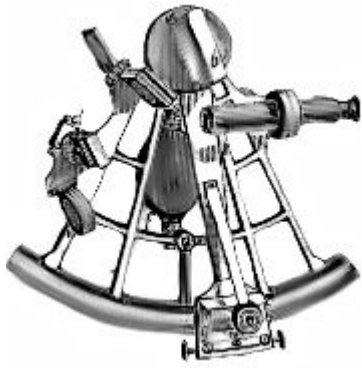


Sidewalls shimmed up and out, radio tray shimmed in



gluing strips of varying thicknesses of sheet styrene where shimming was required, then cementing the join, then trimming off the excess using a very sharp hobby knife. Last was putty and Mr. Surfacer to hide the joins of the added plastic.

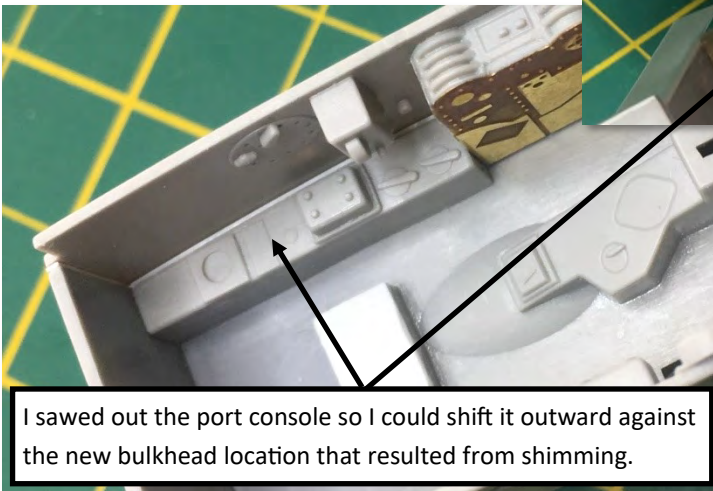




# Feature Story

## Cockpit Chop Shop Part I

While shimming the port cockpit side-wall upward and outward, I created a gap between the port side console and the wall. I did not like the way it looked with an ad-



ditional shim, so I sawed out the console to move it outward too.

purely on “what fit with what” and what looked best to me. You may remember from my previous Greased Lightning articles that my experience with resin up to this point was

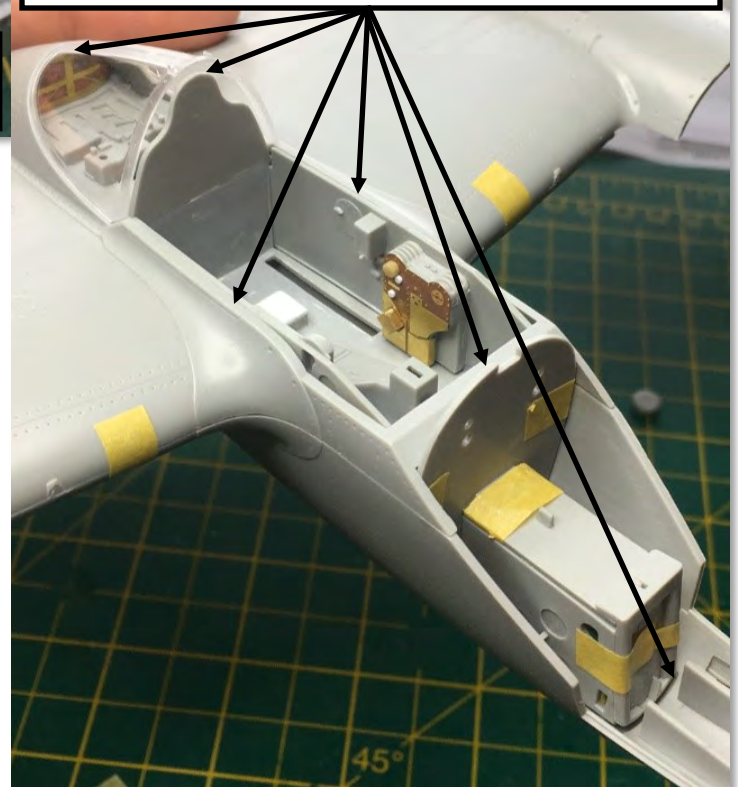
With the sidewalls shimmied up and out, the radio tray shimmied inward, and the bulkheads all shimmied to the correct angles, the edges of all three areas —radio tray, cockpit, and front wheel well— now align perfectly with the fuselage openings and canopy pieces.

I sawed out the port console so I could shift it outward against the new bulkhead location that resulted from shimming.

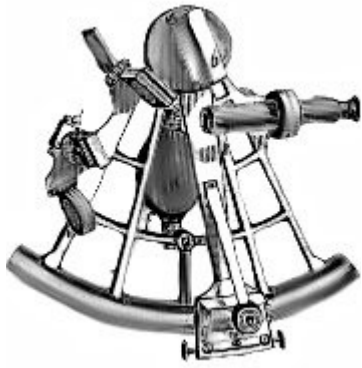
ditional shim, so I sawed out the console to move it outward too.

With shimming complete it was time to test fit the monster assembly into the upper and lower fuselage halves to see if all edges aligned. After some final adjustments to shim thicknesses, the assembly fit flush with fuselage openings on all sides—no gaps. It is interesting to note that all of the fuselage pieces and wing joins dry fit exceptionally well so far on this kit, but as you can see the innards have needed plenty of shim work. Honestly though I’d prefer it this way rather than the opposite.

So with the front assembly fitting snugly into the fuselage I turned my attention to further detailing the cockpit and radio tray. Armed with Eduard PE, Verlinden Resin, styrene tubing, and lead wire I set about detailing the existing cockpit and its sub assemblies. My aim was to combine these AM pieces with kit plastic and each other, creating a frankenpit based



merely dry fitting the resin wheels I intend to use, and that I’ve just recently learned how to solder PE and glue PE and do basic wiring—all largely out of sight in the main wheel wells. So detailing this cockpit is



# Feature Story

## Cockpit Chop Shop Part I

for me a graduation exercise of sorts.

I began with the Eduard control panel by soldering the panel backing and then building the control panel face itself. The control panel face is pre-colored but nevertheless requires gluing many pieces. I find that

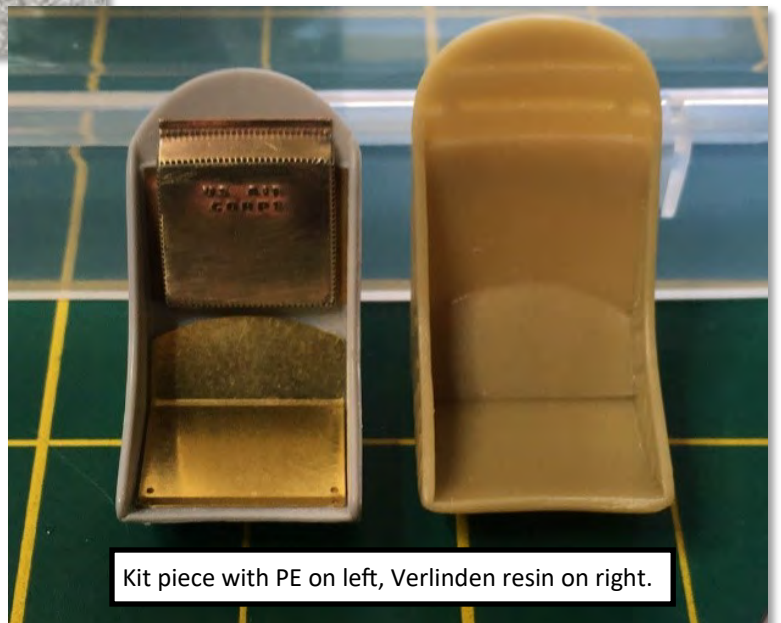


Can you count the 15 pieces that it took to construct the vertical portion of the control panel?

seat. That is until I realized it looked more like 1/24 scale. Then upon closer examination of my PE parts I realized Eduard provided some cool looking seat add-ons that completely cover the sink marks. So kit seat with PE it will be!

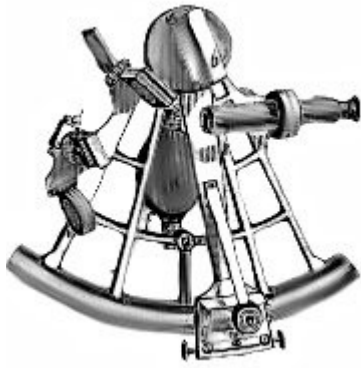
minuscule amounts of 5 minute epoxy applied with toothpick allows me plenty of time to position the small pieces. After 5-10 minutes of positioning several pieces—once set—I wipe away any excess epoxy with a small pointy cotton tip damp with lacquer thinner. The result is clean and tidy.

After suffering a mini burn-out from the control panel work I turned to the pilot's seat. The kit seat had prominent sink marks where the pilots butt and back would be—basically in the most visible parts of the seat. Due to the curvature of the seat and resulting difficulty of filling and sanding the sink marks I decided initially to use the Verlinden resin



Kit piece with PE on left, Verlinden resin on right.

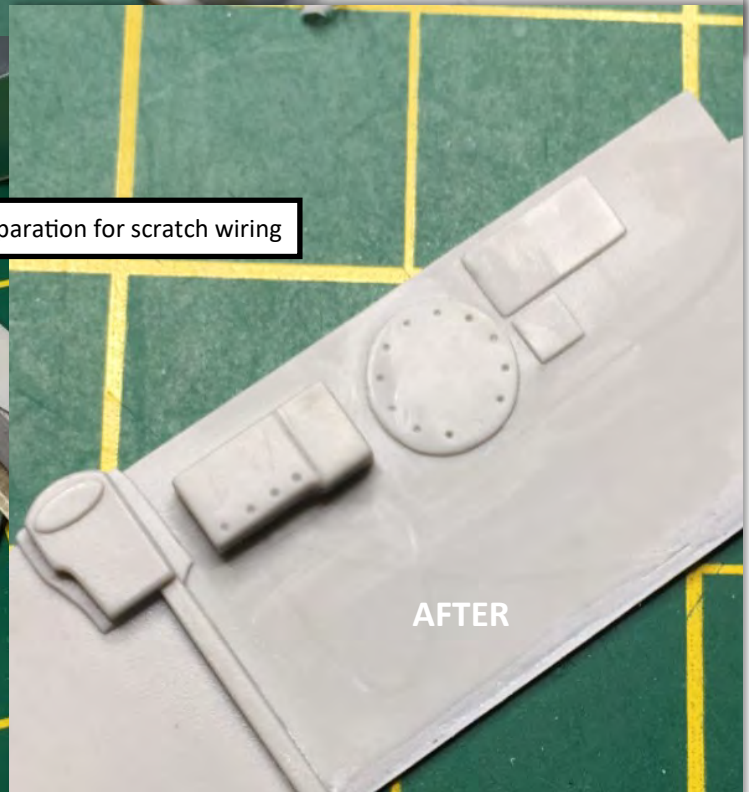
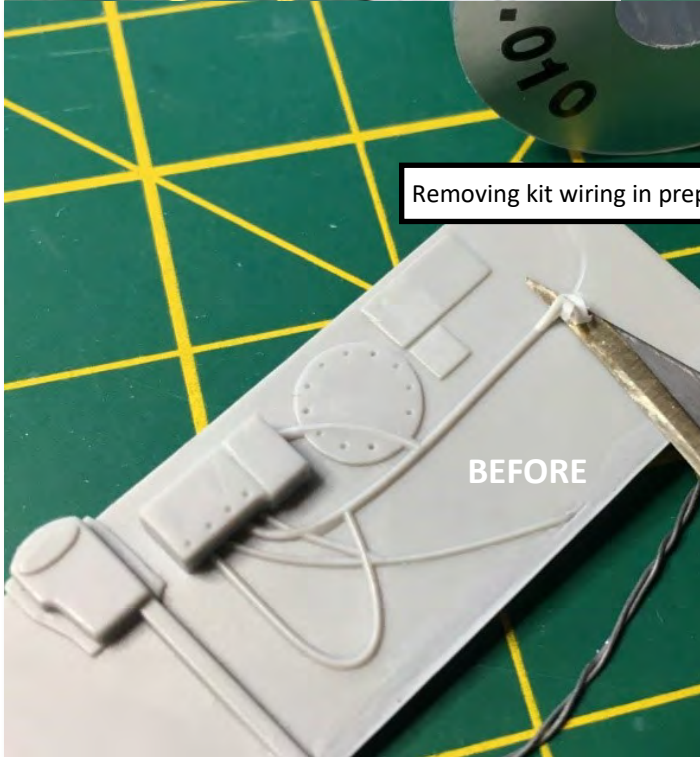
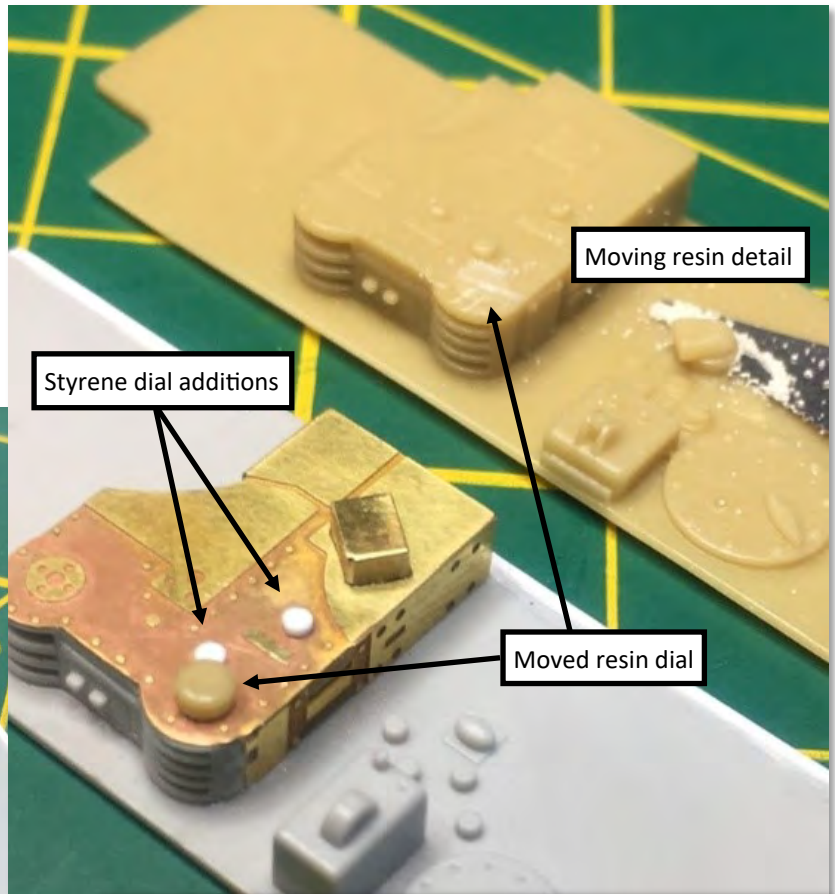
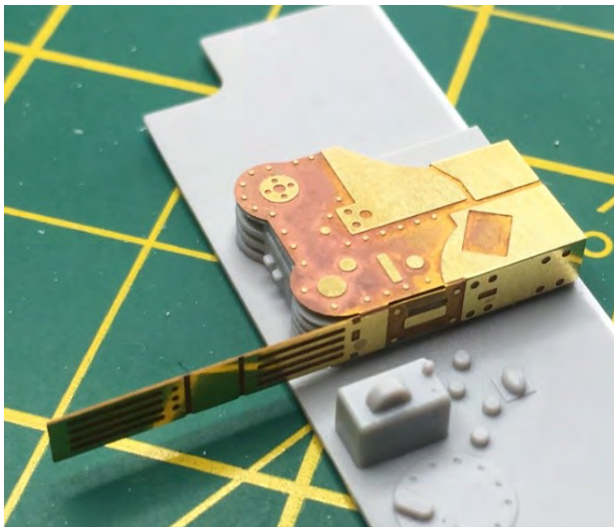




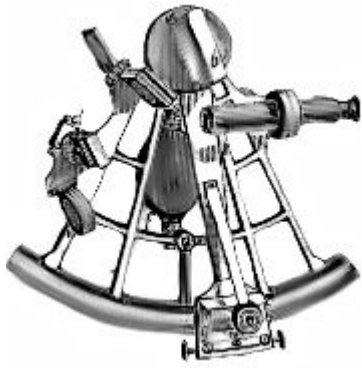
# Feature Story

## Cockpit Chop Shop Part I

Once satisfied with my plan for the seat I turned my attention to other areas of the cockpit to remove, exchange, or add new detail using various combinations of resin, styrene, and PE.







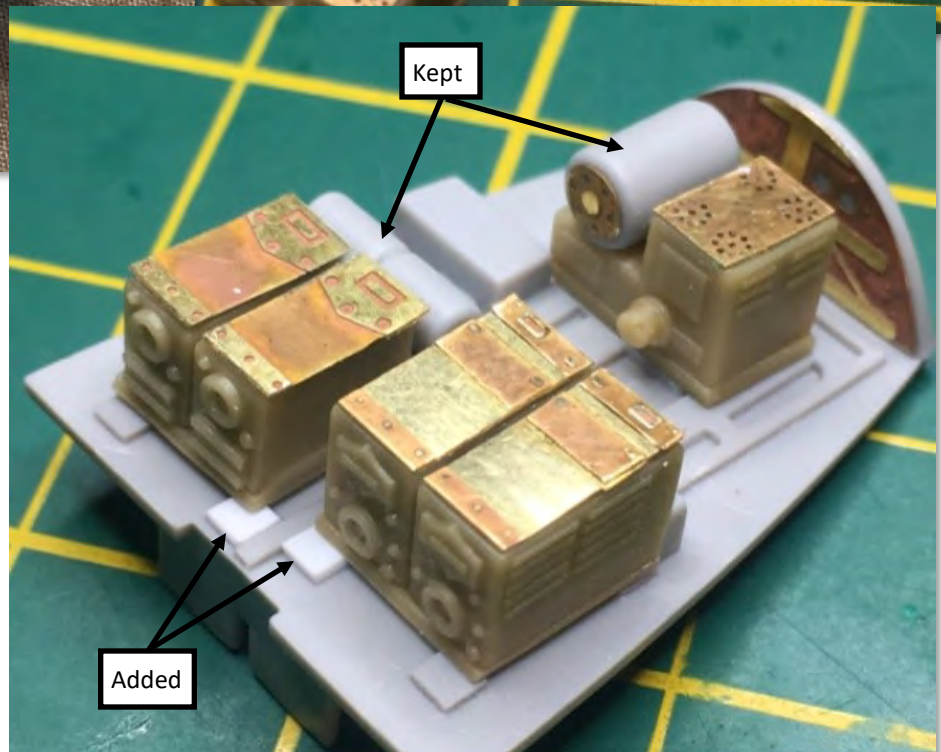
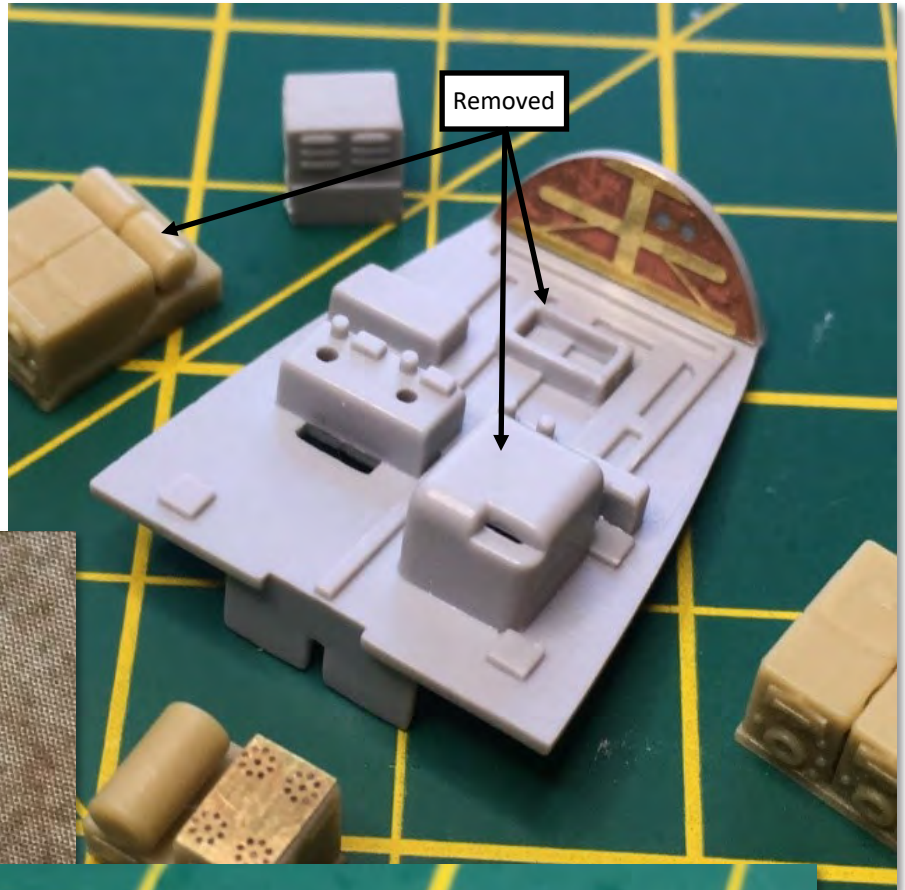
# Feature Story

## Cockpit Chop Shop Part I

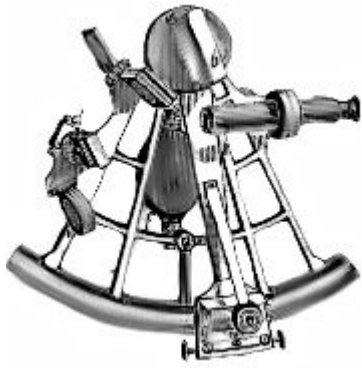
After working on the sidewalls a bit and feeling good about my plan I moved to the radio tray to make some headway there. The design of the kit radios was not good in some areas so it did not take me long to decide to ditch them in exchange for the Verlinden resin counterparts. I also found that some of the PE fit the resin pieces quite well...



If you look closely you can see there's quite a bit of removing, adding, mixing and matching with the various styrene, resin, PE, and kit options. The decision process and making things fit was really enjoyable.





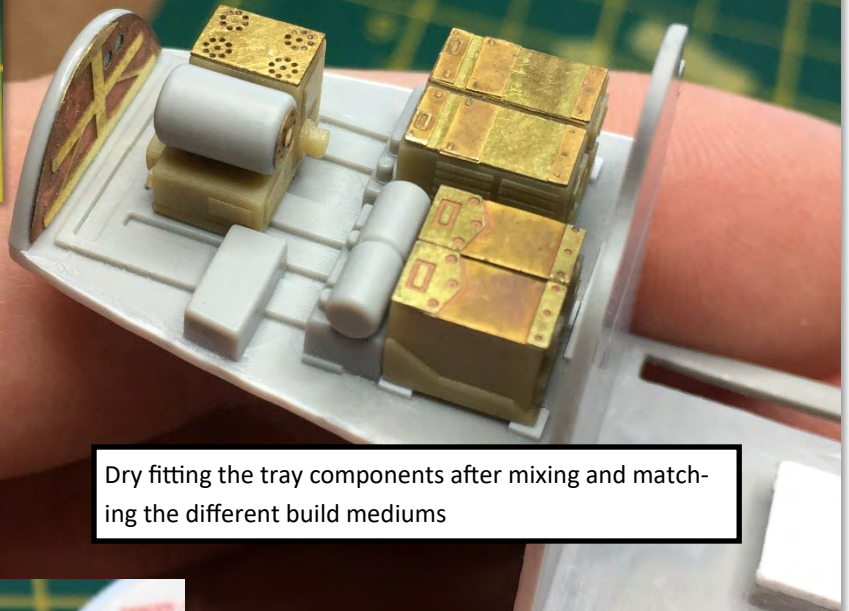


# Feature Story

## Cockpit Chop Shop Part I



After spending so much time cutting and pasting I really started getting a hankering to shoot some paint and start making things look real. So I did. My first kit I built lock-step, following the order of the instructions to a tee. But I've developed a fondness for skipping around a bit—building and doing what suits me on a given build day. It keeps a long build interesting and new.

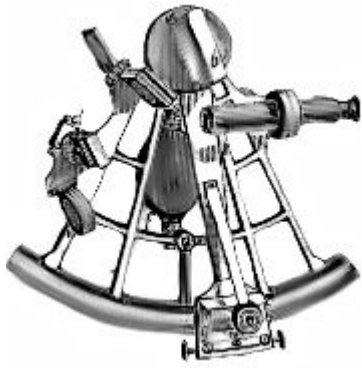


Dry fitting the tray components after mixing and matching the different build mediums



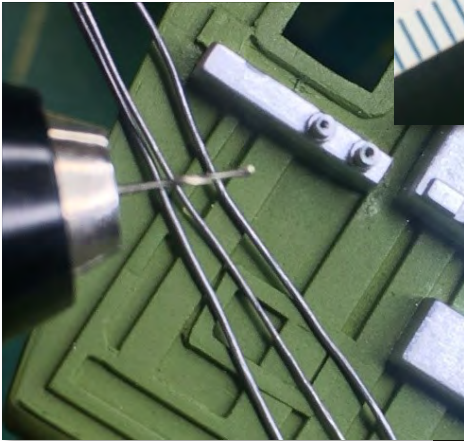
Decanted Tamiya Bare Metal Silver for the whole of the radio tray base, then masked for MM Interior green. After paint and unmasking, I poked pilot holes for drill bits for wiring.



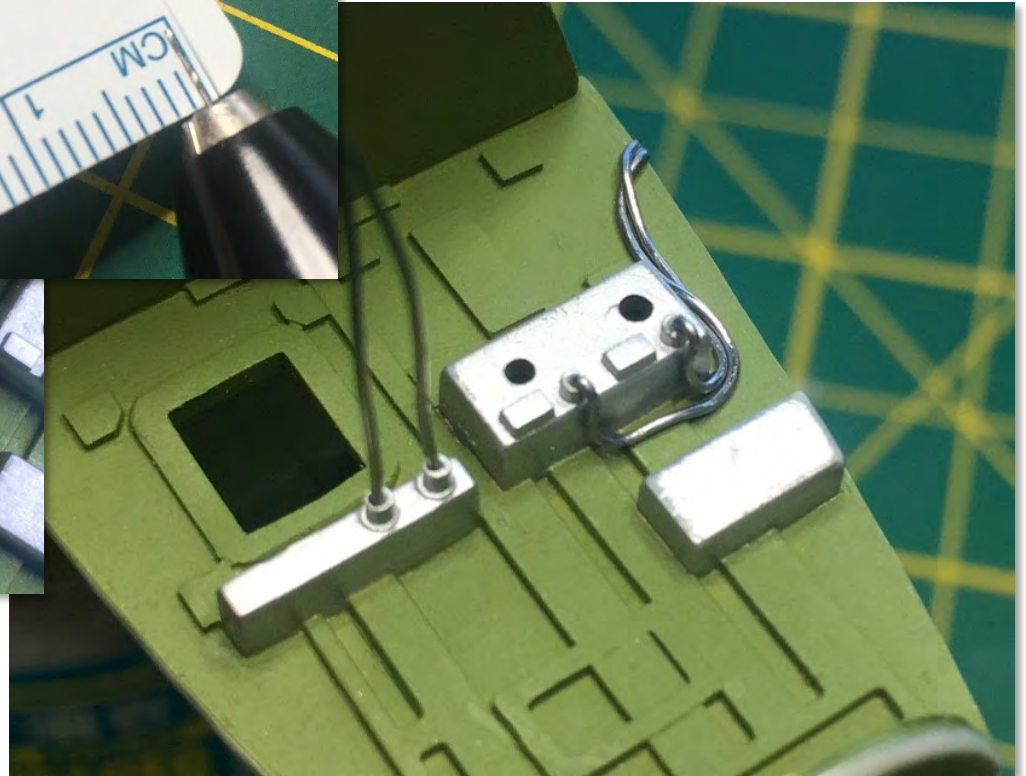


# Feature Story

## Cockpit Chop Shop Part I

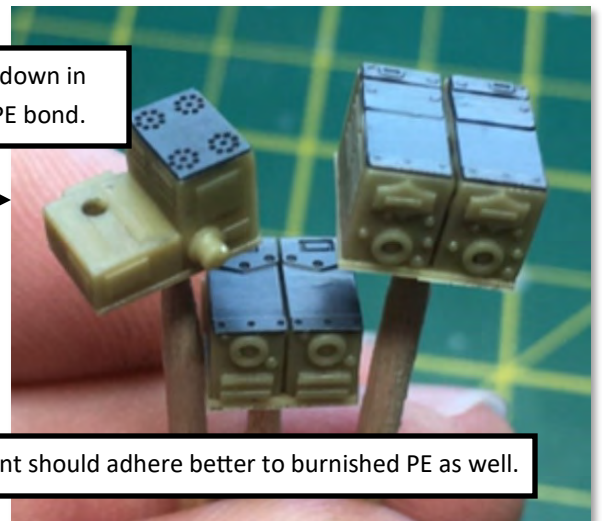


Wiring begins! Using a pin to poke pilot holes as guides for a drill bit, I then hand drilled holes to match the chosen wire diameter(s).



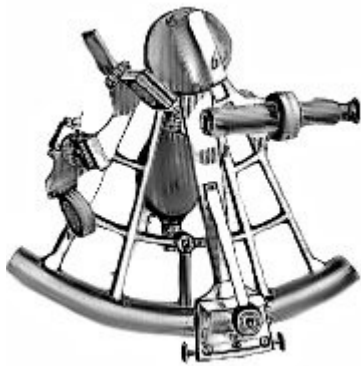
With PE already glued to the top of the resin radios, I soaked them upside down in the burnishing fluid. The fluid does not affect the existing epoxy or CA to PE bond.

After some initial wiring I decided to go back to working on PE. Purveyor of plastic ADD. While working with PE I noticed that once painted, the slightest nick or scratch revealed an unsightly and obvious gold from the brass beneath. Following some research I therefore decided to try my hand at burnishing PE—in effect acid burning the PE black before painting.



No more unsightly gold if the paint gets nicked. Paint should adhere better to burnished PE as well.

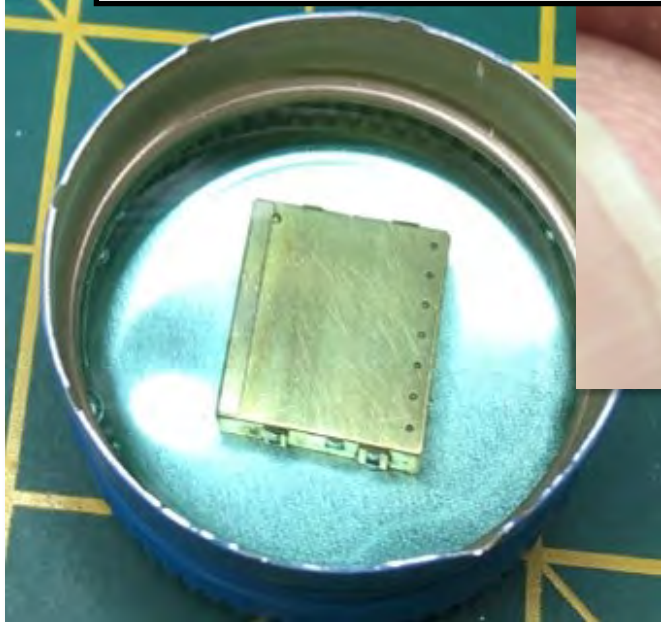




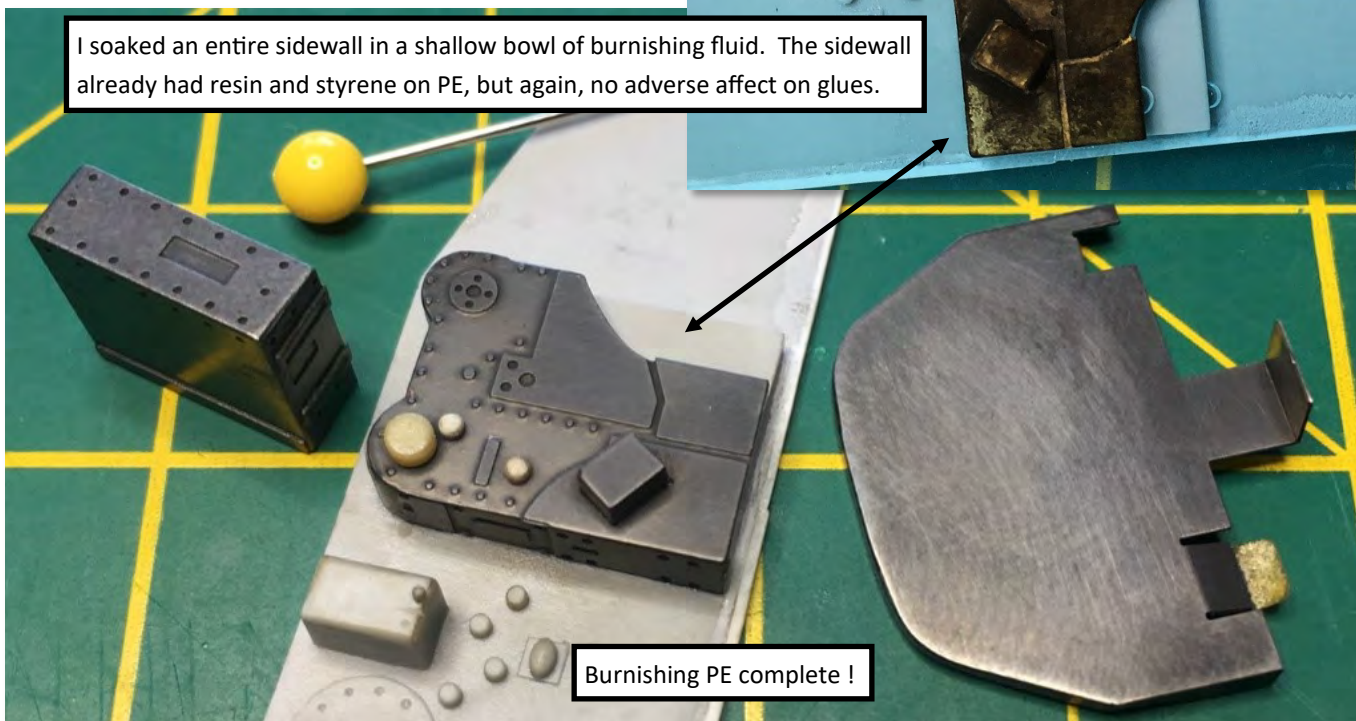
# Feature Story

## Cockpit Chop Shop Part I

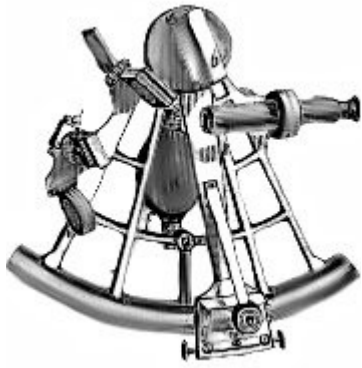
You can see that burnishing this PE box creates an extremely realistic darkened metal finish. This box goes behind the pilot's seat—it looked so good to me I won't be painting it!



I soaked an entire sidewall in a shallow bowl of burnishing fluid. The sidewall already had resin and styrene on PE, but again, no adverse effect on glues.



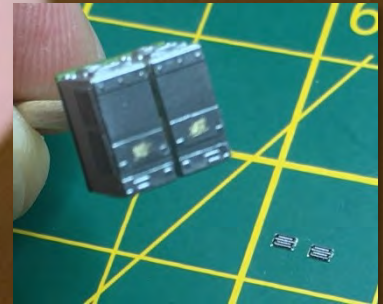
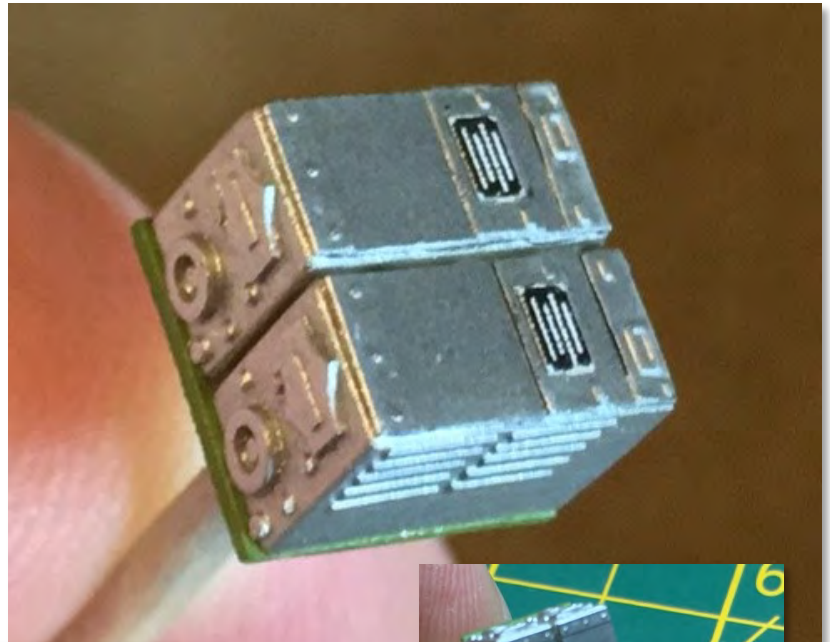
Burnishing PE complete !



# Feature Story

## Cockpit Chop Shop Part I

With burnishing of the PE complete I commenced painting the radio tray equipment. I used decanted Tamiya bare metal silver AS-12 for the electrical generator boxes. I painted the dive recovery flap control motor Tamiya dark grey XF-24 then misted it with thinned Tamiya medium blue XF-18 to achieve the desired greyish-blue. I sprayed thinned black over bare metal silver for its canister. I sprayed the radios black then misted with very thinned dark grey, and for the radio canisters I sprayed



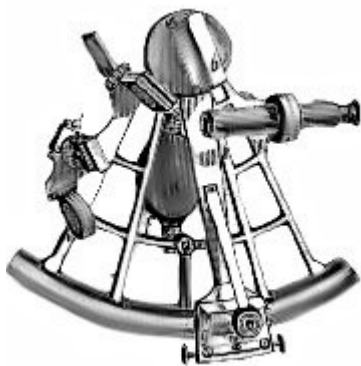
The base of the bluish-grey recovery flap motor will be interior green; the base of the black radios will be bare metal silver.

thinned black over bare metal silver again. I chose these colors based on photos I found in the Squadron/Signal Walk Around publication for the P-38. The

Eduard PE placards were glued with 5 minute epoxy after scratching away the paint at the glue points.

**STAY TUNED FOR MORE GREASED LIGHTNING SHENANIGANS IN FUTURE ISSUES OF THE NAVIGATOR !!!**





# About Alamo Squadron

## Executive Board 2017-2018



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**IPMS/USA Alamo Squadron** was founded on November 17<sup>th</sup>, 1977 in San Antonio, Texas, for the enjoyment of building scale models and the camaraderie of the members. It is a hobby-centered social organization which, at its core, is focused on scale modeling of all kinds. It is an excellent source of information for those who wish to enhance their modeling skills and improve their modeling techniques, and is open and inviting to visitors and guests. Dues are \$24.00 a year, due to the treasurer on September 1st of each year.

Alamo Squadron has been hosting ModelFiesta since 1981. Locations have included the Wonderland Mall, a Holiday Inn, the Seven Oaks Motel & Convention Center, the Live Oak Civic Center and the new location for 2013, the San Antonio Event Center.

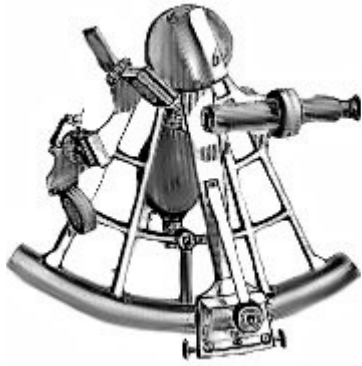


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# Upcoming Events

IPMS Region 6

**Next Meeting: Thursday, February 1st, 2018 at 7:00PM**

**Location: Northside Ford of San Antonio**

**February 17, 2018**

**ModelFiesta 37**

**San Antonio Event Center**

**8111 Meadow Leaf Dr**

**San Antonio, TX 78227**

[Alamosquadron.com/modelfiesta.html](http://Alamosquadron.com/modelfiesta.html)



**March 3, 2018**

**MCMA Showdown 2018**

**Dr Pepper StarCenter**

**1400 South Pipeline Rd**

**Euless, TX 76040**

[http://www.themcma.net/Club\\_Contests.php](http://www.themcma.net/Club_Contests.php)



**March 24, 2018**

**RiverCon VII 2018**

**620 Benton Rd**

**Bossier City, LA 7111**

<http://www.ipmsredrivermodelers.org/>



**April 7, 2018**

**Great South Tigerfest XXIV Scale Model Contest**

**St. Jeromes Knights of Columbus Hall**

**3310 Florida Ave, Kenner, LA 70064**

<http://ipmsneworleans.wix.com/flyingtiger>



**April 14, 2018**

**Tulsa Modelers Open Contest**

**Bixby Community Center**

**211 N. Cabaniss, Bixby, OK 74008**

<http://www.tulsaipms.org/>



**April 28, 2018**

**Modelmania**

**Stafford Centre**

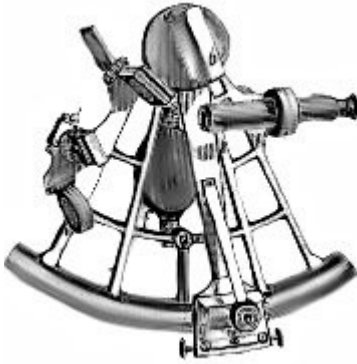
**10505 Cash Rd, Stafford, TX**

[http://www.ipms-houston.org/?page\\_id=11](http://www.ipms-houston.org/?page_id=11)



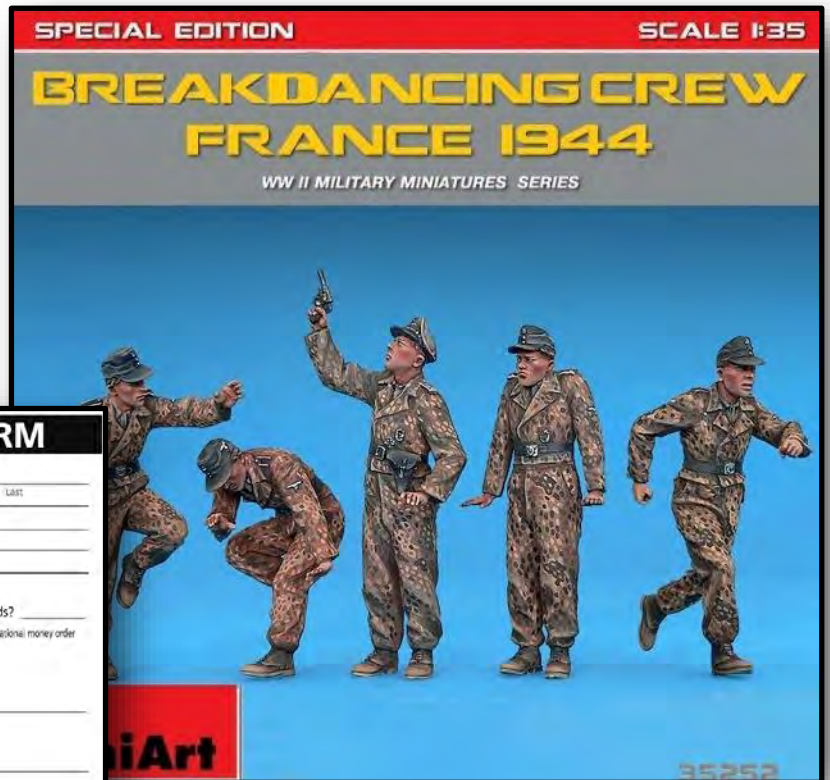


# Final Words ...



<http://www.ipmsusa.org/>

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<input type="checkbox"/> Junior (Under 18 Years): \$17 <input type="checkbox"/> Family, 1 Year: \$35 (Adult + \$5, One Set Journals) How Many Cards? _____				
<input type="checkbox"/> Canada & Mexico: \$35 <input type="checkbox"/> Other / Foreign: \$38 (surface) Checks must be drawn on a US bank or international money order				
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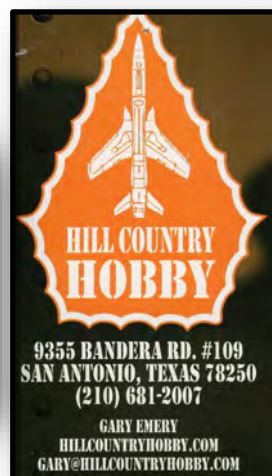
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