

THE SCALE SQUADRON
OF
SOUTHERN CALIFORNIA

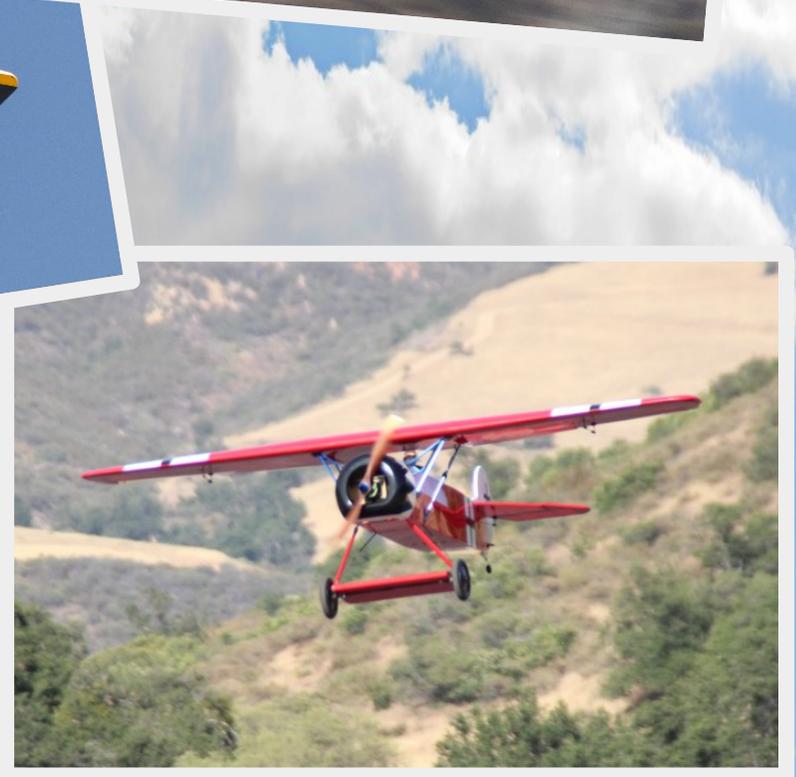


Founders of the
U.S. Scale Masters Championships

SCALE DIMENSION

Official Newsletter of the Scale Squadron of Southern California

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Begins
March 16!**
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Lyon Air Museum**

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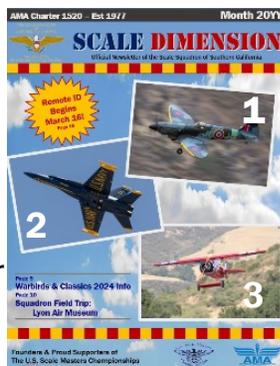
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On the Cover

1. Dave Kadonoff's Supermarine Spitfire showing it's stuff in a high-speed flyby. *(Deana Denlinger photo)*
2. Not sure who this gorgeous McDonnell Douglas F/A-18 Super Hornet belongs to but it certainly made an impression on the crowd. *(Deana Denlinger photo)*
3. Martin Fair bringing his Fokker D.VIII "Flying Razor" around for a slow flyby.



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Mike Greenshields
Commander

Hello Squadron!

I hope you all stayed dry over the last month, we've finally had rain. The field is going to be GREEN! It's always so beautiful out there this time of year.

Lots Going On This Month

- ◆ Our meeting is this **Monday the 11th**, and that includes a presentation by our own **Jaime Colley!**
- ◆ Overland Adventure (formerly the **RCX Show**), now with a hobby swap meet, is March 16-17,
- ◆ **Warbirds & Classics AZ** is that same weekend, March 14-17.
- ◆ Our **Squadron Flying Day** is the 24th

Warbirds & Classics

Preregistration for the Scale Squadron's **Warbirds & Classics** event is now open and ready to go the meeting. We have a new feature for registration: the pilot reserving the pit space will get to pick their own pit space. This ensures that all of our pilots get the exact placement they want and thus they'll know their exact pit spot. You can get there from here:

<https://www.scalesquadron.com/warbirds-and-classics-annual/>

But you'd better get there soon as all the best spots sell out very quickly.

Meeting Presentations

While I don't have a model ready for stitching yet, I really want to try Mod Podge to cover a model. I'm truly enjoying these presentations! I wanted to say thanks to **Larry Wolfe** and **Eric Puchalski** for their presentations and to Jaime for taking on the next one. There is *SOOOO* much talent in this club! Thank you everyone for sharing your tips and ideas!

Squadron Field Trips

There was a Squadron field trip to **Lyon Air Museum** in February. Eric has scheduled the next field trip to the **Miniature Engineering Craftsmanship Museum** for **March 23**. Hopefully it'll be a day where I have no conflicts so I can go!

Personally, I have never had such a busy January and February, and frankly March is looking pretty overloaded too. But, as I said... **NO EXCUSES!**

There's so many good things going on this year!

So **PLEASE** bring out those latest projects! Your fellow club members want to see what you got goin'!

Happy Landings,

Mike Greenshields, Commander

Commander@ScaleSquadron.com



Spring has sprung and there's lots going on! March is a splendid time for R/C flying. (Maybe for other kinds of flying as well, but I wouldn't know.) In SoCal the weather is transitioning from winter "chill" (that would be sub-70s temperatures for those of you who live with "real" weather) to lighter winds and less rain.

There's lots going on this March, and April is shaping up to be more of the same. I would encourage you to take a look at the *Upcoming Events* section of this newsletter for an idea of what's going in R/C scale modeling within a day's drive of SoCal. For my part, I've spent *way* too much time being distracted from modeling over the past few months. I'm looking forward to getting back in shop and making some balsa dust.

Warbirds & Classics 2024

It's that time of year again. Expect to be pummeled by information and requests for volunteers for the **2024 Warbirds & Classics** event. Planning for the event is well under way and some of the prerequisites are already in place. Take a look at **Page 9** for details.

Call for Contributions

In the past I've hinted that it would be great if Squadron members would help improve the newsletter by contributing photos, experiences, plans, and anything else relating to this terrific hobby. This month I'm shamelessly going to pull out all the stops by actively soliciting your contributions. Take a look at my editorial on **Page 15** and ask yourself what you can kick in. **You need not be a Squadron member to submit content.** I'm happy to consider anything from all comers, as long as it's relevant to scale model building and flying. If you can't think of anything then ask me for some ideas.

Cockpit Detailing

With everyone busting their bums on projects for the Builders' Wing at W&C, I thought I'd pass along an article from master modeler **Chris Wolfe** showing how adding just a few simple cockpit details can result in a big improvement in a model's looks. The article starts on **Page 17** and is a great read.

My Piper Cub Restoration

I've made some progress on my Piper J-3 Cub restoration project. I now have an engine installed,



Eric Puchalski
Newsletter Editor

a functioning radio, and a strategy to get the rest of it wrapped up. There are those who would have taken the model as I got it and just wrapped some duck tape around it to get it back in the air; but that's not my style. It's been an interesting project renovating this machine and I'm looking forward to having it in the air very soon.

Take a look at **Page 12** to see my latest progress.

Squadron Meeting Notes

I'm pretty excited to announce that a while back, **Commander Mike Greenshields** requested that the monthly Squadron meeting notes be presented in the *Scale Dimension* newsletter. We sort of missed the January notes (which should have been in the February newsletter) but we're on track now. The regular Squadron meeting update will now include meeting notes prepared by **Secretary Joni Whitsitt**. To make up for missing the January notes, I'm including them here with the February meeting update. You'll find all of that on **Page 5**.

Note that having the meeting notes published is *not* an excuse to avoid attending meetings. By attending, you have the opportunity to display your modeling prowess during Show & Tell and you can engage in discussions about S&T presentations. You can also enjoy the coffee, cookies, and other refreshments offered to meeting attendees.

I'll see you at the field!

roadkill1954@gmail.com



JAN & FEB 2024 SQUADRON MEETING NOTES

January 8, 2024

Commander, **Mike Greenshields** called the meeting to order at 7:10pm. The membership stood and said the Pledge of Allegiance.

Mike wished everyone a Happy New Year and said **Larry Wolf** will be giving a special presentation this evening on scale rib stitching.

Treasurer's Report: Tim Cardin reported all Christmas expenses have been paid. We have money in the bank.

Mike said he would like to see the club be more active this year, plenty of events around the area to attend. Our annual event, Warbirds & Classics in June 28-30th, special one-day event for Scale Masters qualifier, attend other club's events like PVMAC scale fly-in April 19-20. It's a local event, great place to fly. Scale Masters needs judges, we need to train some of our members if they are interested in participating.

Eric Puchalski, Vice Commander asked about refreshments? Are they OK? Any recommendations?

Eric also talked about trips to museums: February will be Lyons Museums near John Wayne Airport. March will be March Air Base visit, April will be Flabob Airport, third Saturday of the month., May will be Miniature Craftsmanship facility near Carlsbad, CA.

Break: 7:30 pm to 7:46pm

Larry Wolfe's program was rib stitching a wing demonstration.

Show & Tell

Pat Driscoll brought his Thomas Morse S4C Scout he's building from a Balsa USA kit.

Ed McCormick brought his 48" Spacewalker originally electric powered but changed it to a Saito 90T.

Eric Puchalski brought in an old scale model to experiment with to apply markings.

Secretary, **Joni Whitsitt** announced Club Fly Day January 14th, chili dogs are on the menu, 10:00am to 2:00pm Mike said he would bring some scale masters judging sheets to the field to practice on.

Members in Attendance: Gordon Truax, Connie DeJong, Jerry Thompson, Ed McCormick, Larry Wolfe, Pat Driscoll, Mark Puchalski, Tim Cardin, Mehdi Hatamian, Eric Puchalski, Joe Trama, Mike Greenshield, Jaime Colley, Joni Whitsitt.

Meeting Adjourned: 8:55 pm

[ed note: The detailed meeting notes from the February meeting weren't available when the newsletter was being put together. The following is a list of subjects we talked about. The detailed notes will be published next month.]

February 12, 2024

Scale Squadron Notes for February Meeting 2024

- New storage unit for club.
- Club trip to Lyon's Museum
- Club fly day at OCMA
- Scale Master at Hemet 2024.
- One day practice event for Scale Master in November
- Announce other local club events.
- Dates for RCX at Pomona facility



February 2024 Squadron Meeting

Eric Puchalski did a presentation on how he uses ordinary fabric to cover his models. He's been using this method for many years with great results on everything from small sport models to large scale models.

Eric explained how this method allows the use of most any kind of fabric including polyester, nylon, silk, cotton, etc. The only consideration when selecting a fabric is that it should be lightweight and have a tight weave.

Fabric is attached to the framework using **Mod Podge**, a heat-activated glue that was developed for découpage crafters. The shrinking and tautening of the fabric is done by the dope. The overall process will be familiar to anyone who has covered a model using fabric and dope.

Here's how it works:

1. Cut a piece of fabric leaving a couple inches extra all around the surface being covered.
2. Apply one coat of Mod Podge all around the outside edge of the part. Allow five to 10 minutes for the Mod Podge to dry.
3. Arrange the fabric over the framework and Tack it down at one end using your shrink film iron. Set the iron to around 275°. You'll want to put a cover on your iron because some of the glue will come through the fabric and stick to the iron.

4. Stretch the fabric pretty tight and attach the other end to the frame.
5. Work your way around the frame, stretching and tacking until all the wrinkles are gone and the edges are sealed.
6. Using sandpaper or a sharp blade, trim the excess fabric.

At this point the fabric is ready for dope, primer (optional), and paint. Eric uses **Randolph Aircraft Products' tautening** nitrate dope from **Aircraft Spruce**. He thins the dope 50/50 using Randolph's nitrate thinner. The first coat over the bare fabric should be *very* light. Different fabrics react differently to the dope. The covering will need at least three coats of the thinned dope with a light sanding between each coat before the surface is ready for primer and paint. You can add another coat or two if needed to get the finish you want.

Eric says that covering models with this method is no more difficult than shrink film—there are just a couple different steps. He also said if you have any questions, let him know.



February 2024 Squadron Meeting

Jon Perry showed a **North American P-38 Lightning** that he picked up from a friend. The model is an ARF from Fliteline Hobbies. The PNP model came with pretty much everything installed and ready to go. It has a 63" wingspan and carries two batteries and ESCs for the motors. It has electric retracts with sequenced gear doors that look very realistic.

The model has an accurate scale outline and includes a lot of scale details, including machine guns, flaps, landing lights, cockpit detail, etc. All-up weight is around 7.5 lbs and airspeed should be 80+ MPH.

Jon explained how the motors are set up to run contra-rotating props just like the full-size aircraft. This was designed by Lockheed to resolve some slipstream turbulence issues that resulted in elevator problems on the prototype.

This looks like a fun model and Jon is looking forward to flying it soon.



Eric Puchalski has been working on his **Piper J-3 Cub** and is showing some progress. The model was built from a Sig kit 20+ years ago by a now anonymous builder. It's gone through several owners over the years but the overall condition is pretty good. Eric considers this a "restoration" project as several of the structural components have required a lot of attention to make them flight-worthy.

There was no engine in the model when Eric received it and Eric will use a **CRCC GF26i** 26 cc two-stroke gas engine. The model has a 104" wingspan and should come in around 15 lbs ready to fly. At this point, most of the major repairs have been completed. The empennage required some major repairs and a set of bracing wires for the stab and fin. The wing center section also required a lot of attention.

Next up will be the engine installation, a new cowl, lots of hole patching, and a new paint job.



MONTHLY MEETING NIGHT

Monday
March 11, 2024
7:00pm

The March 2024 Meeting is On!

We'll have lots to go over at this month's meeting. More **Warbirds & Classics** details and plans will be discussed and we'll also check up on everyone's **Builders' Wing** projects. And don't forget **Show & Tell**!

Keep in mind that visitors are always welcome so don't be shy about bringing someone. And remember that anyone with *anything* for **Show & Tell** will receive a raffle ticket for special prizes to be raffled off at the Squadron Annual Banquet in December.

Meeting location is the **Green Valley Adult Clubhouse**. The address is:

17250 Los Jardines West
Fountain Valley, CA 92708

Directions from the South:

- From I-405 North, exit at Euclid
- Turn **Left** onto **Euclid** at the offramp
- Turn **Left** onto **Slater**
- Go *past Los Jardines East*
- Turn **Right** at the light onto **Los Jardines West**

The Clubhouse is on the right about a half block past the school on the left.

Directions from the North:

- From I-405 South, exit at **Brookhurst North**
- Merge onto Brookhurst and turn **Right** onto **Slater**
- Turn **Left** onto **Los Jardines West**

The Clubhouse is on the right about a half block past the school on the left.

WARBIRDS & CLASSICS 2024

Warbirds & Classics 2024 has Officially Taken Off!

Friday, June 28 through Sunday, June 30, 2024

We've got plans in the works, snazzy new artwork and registration is now open at:

<https://www.scalesquadron.com/warbirds-and-classics-annual/>

Register soon as all the best spots go very quickly.

We Have All the Stuff You've Come to Expect

- ◆ Reserved pit spaces. You'll want to grab one of these ASAP as they go fast.
- ◆ Flying all day Friday, Saturday, and as long as you want on Sunday.
- ◆ People's Choice Award with voting at the Saturday Noon Time Runway Lineup.
- ◆ Lunch and a mixer, dinner and get-together for pilots on Friday included with your pilot registration.
- ◆ Catered lunch on Saturday included for pilots.
- ◆ Donuts and coffee each morning for pilots.
- ◆ Catered Saturday Night Banquet & Awards presentation.
- ◆ Lunch on Sunday for those who stay.
- ◆ Have an RV or Camper? Sign up for **free onsite dry camping** (no hookups).
- ◆ **Vendors Welcome.** Space is free but you will be expected to provide at least one prize for the raffle.

A Few Things to Keep in Mind

- ◆ This is a Scale Model Flying Event. So, Scale airplanes only. We're not picky, we just want an actual scale model. You know... no Ugly Sticks with Air Force markings, etc. What we'd **love** to see is your latest scale project!
- ◆ AMA membership and FAA UAS registration are required and you will be asked to show your 2024 cards.
- ◆ We will fly a standard pattern so no hovering or other Freestyle/3D type flying.
- ◆ Helicopters are allowed as long as they are scale and fly the same pattern as the fixed wing models.



- ◆ Formation flying is allowed. Please work with our CD and Air Boss to ensure you have the space (no more than five pilots at a time)
- ◆ OCMA Field safety regulations apply.
- ◆ OCMA Field is an FAA FRIA flying site so a Remote ID transponder is not required in your model but you must have an FAA registration number on your model somewhere.
- ◆ You **must** have a fire extinguisher in your pit area. Every pilot must have his or her own and it must work.
- ◆ NO TURBINES. We'd love to have you but it's just not allowed by OC Parks
- ◆ NO SMOKE. The Fire Marshall or Park Ranger will think it's a fire, send fire trucks, and that would be bad for everyone.

Obviously we can't control the weather but late June in that area is usually fairly calm winds, no rain, warm but not smokin' hot weather (high 70s to 80s usually).

If you have questions about any of this, just contact your favorite Squadron Board member.

See You at Warbirds & Classics 2024!



FIELD TRIP: LYON AIR MUSEUM

by Eric Puchalski

So, the turnout for our first Squadron Field Trip was a little disappointing but Ed McCormick and I had a great time exploring the **Lyon Air Museum** in Santa Ana. I always enjoy talking with Ed but being able to compare notes with him for a couple hours while we enjoyed the museum was an awful lot of fun. Ed has a lot of knowledge about airplanes, aircraft, fabrication methods, history, people, and places. It was kinda like having my own personal docent.

We arrived at the museum at 10:00am just as the doors were opening. After wandering around the gift shop for a few minutes (without buying anything) we headed out to the museum floor. I had been to the museum before (and wrote a summary of that visit in the [April 2022 Scale Dimension](#) newsletter) so I knew what to expect.

The museum is housed in a single, giant building with two of the four walls made mostly of glass. This provides an excellent environment for taking photos. There is also a mezzanine on one side of the building that provides a bird's-eye view of the main floor. We spent a fair amount of time up there admiring the scope of the collection.

There are several large airplanes on the floor, including a **Boeing B-17 Flying Fortress**, **North American B-25 Mitchell**, a **Douglas DC-3 in American Airlines livery**, and a **Douglas C-47 Skytrain**. Just outside the hangar doors was parked a **Douglas A-26 Invader**. (I guess they ran out of room inside.)

Tucked in among these are a whole bunch of smaller planes, military vehicles, military motorcycles, automobiles, poster exhibits, and display cases filled with plastic models and all manner of aviation-related artifacts. All in all, we spent about two hours looking things over. We probably could have spent more time but we were getting hungry and had other things to do that day.

If you'd like to learn more about the museum I'd suggest a look at the article in the 04/2022 Squadron newsletter or a trip to the museum's website.

All in all, we had a very enjoyable visit. I would recommend this museum to anyone with even a passing interest in WWII military aviation or vehicles. It's an ideal place to get documentation photos for a scale project because you can get right up close to all of the aircraft and vehicles on display. 🦅



01



02



03



04

01: A focal point of the museum is the **Boeing B-17 Flying Fortress "Fuddy Duddy."** The airplane is flyable but is grounded due to a needed overhaul of the wing main spar.

02: A good view of the **Douglas C-47 & DC-3.** The wall at the back with the windows is actually a set of hangar doors opening onto the tarmac and the active runway at SNA.

04: The **Stearman PT-13D Kaydet** is the same airframe as the PT-17 but the PT-17 uses a larger engine.

03: Adolf Hitler's personal **1939 Mercedes-Benz Model G4 Offener Touring Wagon.** I'd forgotten what a beast of an automobile this is.

FIELD TRIP ANNOUNCEMENT

When

Saturday, March 23, 2024. We'll meet at the museum at 10:00am, cruise around until our brains are overloaded and then get some lunch somewhere nearby.

What to Expect

My friend **Jack Guiso** and I visited the MECM some time back. We came away just amazed and we promised ourselves another visit. You can find our detailed review of the museum in the *September 2022 Scale Dimension* newsletter if you want a better idea of what to expect.

If you're a scale modeling enthusiast, this is the place to be. MECM's emphasis is on craftsmanship in general and that includes airplanes (including a number of **Joe Bridi's** personal airplanes, engines, and radios). Then there are the engines; *lots* of engines: 2-strokes, 4-strokes, ignition, glow, flat twins, radials, steam, V-8's, V-12 *Merlins*, both home-grown (kit and scratch-built) and commercial (Saito, O.S., Fox, Cox, Dennyrite, Brown, and more). And don't miss the locomotives, tanks, doll houses, machine tools, hand tools, firearms, Gatling guns, boats, tether cars, pulse jets, or the roller coaster and carousel. Oh, and **DOCENTS** who know their stuff!

Suffice to say, the collection is pretty amazing and you'll absolutely want to spend more time than we'll have.

How to Get There

The address is:

**3190 Lionshead Avenue,
Carlsbad, CA 92010
(760) 727-9492**

Cost

Admission is free but they gratefully accept donations. Check out their website for more details:

<https://craftsmanshipmuseum.com>

We'll talk about this at the March Squadron meeting.

I hope you'll join us!



Someone invested over 20,000 hours in this 1:6 exact scale Dusenberg. The V-8 engine and four-speed transmission are fully functional.



The museum is housed in a relatively small building. But it's a museum of "miniatures" so what do you expect?



Check out the detail on this hand-build P-51 Mustang. As cool as it looks, it's way *more* impressive in person.

The museum also houses a collection of Joe Bridi memorabilia, including a number of his competition models.



Remember that this is a family event. Bring friends, family, and anyone else you think might enjoy the visit.

ERIC P'S PIPER CUB RESTORATION - PART 4

[led note: This is the fourth installment of I don't know how many where I'm describing the process of renovating a "vintage" Piper J-3 Cub model that a friend gave me. Parts 1 through 3 are in the November 2023, January 2024, and February 2024 newsletters.]

by Eric Puchalski

Main Gear Mounting

I think I mentioned at some point that the main landing gear was originally held on with 20 (count 'em!) #8 sheet metal screws (Photo 1). I determined not to use that mounting method.

One of the things I think we all agree on is that it's far easier to design things into a structure as you're building it than it is to retrofit them later. Such was the case here. You would think reducing the number of screws from 20 to 12 would mean making things considerably simpler. The end result was considerably simpler but getting from 20 to 12 turned out to be a bit of a toothache. There were a few points where some rather unlady like language was used but since I'm not a lady I guess it's OK. The short story is that I replaced 20 sheet metal screws that were tapped into hardwood cross braces with 12 4-40 machine screws that thread into blind nuts (Photo 2). I probably didn't need six metal straps to hold the gear in place but it seemed like a good idea at the time.

Cowl Repair

I'd put it off long enough and it finally came time to think about installing an engine. I quickly realized I couldn't do that without knowing where the thrust line should be and how far the front of the cowl is from the firewall. This of course requires a cowl. I have a cowl that my friend **Jack Guiso** gave me but it's brand new and I'm not sure I'm ready to hack it up trying to make it work with the engine I picked. So, rather than just contacting **Fiberglass Specialties** and ordering a couple of quarter scale J-3 cowls to practice on, I decided that I would salvage the original cowl and use that to get the engine installed and figure out where all the holes need to go. Then I can use that cowl as a template to fit Jack's cowl.

The original cowl looks like it's gone through some bad times and there were some interesting repair challenges there (Photo 3). After holding everything together with tape, I used some fiberglass strips on the inside to reinforce everything. I had suspected that the original model used an **O.S. FT-120 Gemini** four-stroke flat twin. This became more obvious once I reassembled the major pieces of the cowl (Photo 4).

Photo 1: Main gear mounting showing all 20 sheet metal screws in a single frame.



Photo 2: Six LG straps and 12 machine screws will make maintenance much easier. The little white dots are the filled holes where the machine screws used to live.



Photo 3: Here's what I had to work with for the cowl. But at least all the big pieces were there.



Photo 4: All the big pieces reassembled. Note the huge gap in the side. I'll come back to that in a minute.



Eric P's Piper Cub Restoration - Part 4

A little side note here: In **Photo 4**, notice that big gap in the side? It's actually on both sides and it turns out that, even though it looks like some pieces are missing, they're not.

Photo 5A shows the right side of the nose of the airplane without the cowl. **Photo 5B** shows the same thing with the cowl installed. It's a clever design for getting the cowl off easily with two cylinders sticking out the sides and it accounts for the giant gaps in the sides of the cowl.

Although it's a clever arrangement, it makes the cowl very fragile when it's off the plane and adds some giant cracks to the nose when it's installed. Since I'm going to completely reconfigure the cowl anyway, I'm also going to come up with a different way to mount it. That required removing the parts of the cowl that had been glued to the fuselage. I was too far into that job to back out when I realized it was a bad idea. The side pieces were held on with some kind of gooey caulk or filler that had never quite dried. It was impervious to the usual chemicals and it took the "high" setting on my heat gun to even get it to budge. I did finally get them off but then spent most of an evening trying different methods to get the gooey stuff off. It finally succumbed to a sanding block loaded with 60 grit.

Next steps for the cowl are to plug the remaining holes and drill new ones for the engine I've selected. There's no chance that my engine will fit under the Cub's cowl so there will be a number of bits sticking out. Maybe I can cover those later with a dummy Continental kit.

Engine Installation

It would have been great to install something similar to the **FT-120** that was originally used but I don't have anything like that. So I'm going with my **CRCC GF26i 26cc** two-stroke gasser (**Photo 6**).

But first, I had to figure out where the thrust line is. This turned out to be pretty simple. I found an outline drawing of the original engine's mounting plate that included the crankshaft center location. I then drew up an outline of the new engine's mounting plate and included the crankshaft centerline. I overlaid one on the other, lining up the centerlines and that told me where the mounting holes for the new engine needed to go (**Photo 7**). I lined up the white holes with the mounting holes in the firewall and centerpunched the gray holes for the new engine.

I didn't want to add four more holes to the firewall without doing something about the old ones. This led to another roadblock: One of the previous owners thought it would be a great idea to install the fuel tank using solid balsa blocks very roughly shaped to match the tank (**Photo 8**). This probably made sense given the materials at hand but it resulted in an awful lot of balsa installed under the front of the airplane and it made it impossible to get to the back of

Photo 5: I found the missing cowl pieces!

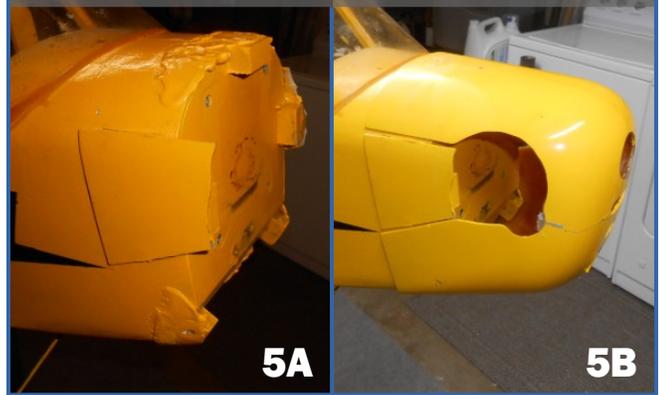


Photo 6: My first foray into the world of gasoline-powered models: a CRCC GF26i 26cc two-stroke.

Photo 7: Engine mounting hole patterns overlaid on each other with crankshaft centerlines (dashed lines) lined up. The gray holes are the new engine, the white holes are the old one.

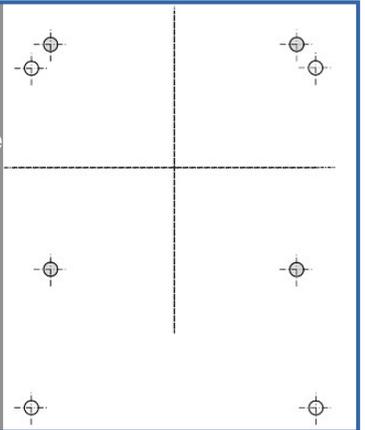


Photo 8: Looking into the fuselage from the trailing edge of the wing you can see the fuel tank held in place with two giant balsa blocks. This made it impossible to access the back of the firewall.



Eric P's Piper Cub Restoration - Part 4

the firewall. With some help from Jack Guiso (who has much smaller hands than me) we were finally able to get all that lumber out.

Then it was a simple matter to knock out the old blind nuts, plug the holes with some 3/8" dowel, drill holes at the new mounting bolt locations, and reinstall the blind nuts. While I was at it, I also plugged the old fuel line and throttle control holes. The result is shown in **Photo 9**.

Using the cowl as a guide, I determined that the engine needed to be mounted 3/4" ahead of the firewall. I was going to get all complicated with a plywood box when Jack reminded me that KISS is *always* a better strategy. So I used a piece of 1x4 clear pine to make a 3/4" spacer in a fraction of the time it would have taken to build something. While I was at it, I also made an extra 1/8" shim just in case (**Photo 10**).

Photos 11 and 12 show the final engine installation. It's obvious that the carburetor will be sticking out in the slipstream. The muffler will be even more obvious.

Cowl Installation

The more I look at the engine and cowl, the more I think it's going to be a problem getting to the engine. I'm thinking I might split the cowl horizontally to make a clam shell. That way I can take off the top or bottom half independently, depending on what part of the engine I need to access. I'd be interested in anyone's thoughts on that.

Next Steps

- ◆ Finish fitting the cowl.
- ◆ Install the fuel system.
- ◆ Install the ignition system and batteries.
- ◆ Install the aileron servos and wiring.
- ◆ Assemble and align the wing.
- ◆ Patch a bunch of holes
- ◆ Polish the windscreen
- ◆ Repaint
- ◆ Add markings

And that's about it for this round. Let me know if you have any ideas on how I might hide some of that engine.

I'll keep you posted.

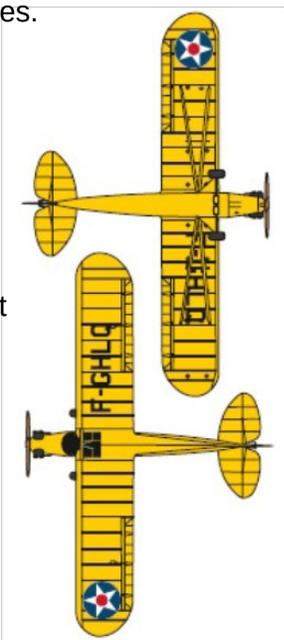


Photo 9: Old engine mounting holes plugged and new ones drilled with 10-32 blind nuts installed. All ready for that giant 26 cc mill!



Photo 10: Parts needed to set the front of the engine where it needs to be.

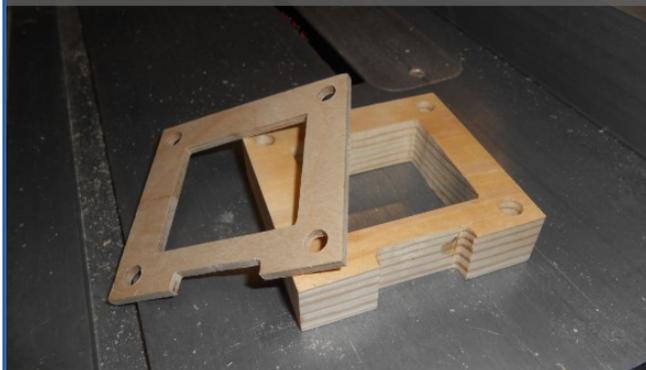


Photo 11: The carburetor is going to stick out like a sore thumb but maybe it can be disguised as a Continental rocker cover.



Photo 12: This is the side where the Pitts-style muffler will be attached. There's no chance I'll be able to hide that.





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I WANT YOU

TO CONTRIBUTE SOMETHING

Editorial: A Call For Content

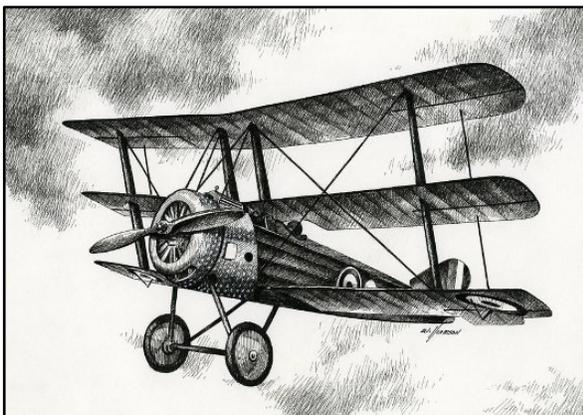
by Eric Puchalski

I'm challenging **YOU** to submit an item for the newsletter. By sharing personal insights, tips, or experiences, you will enrich the collective knowledge base of the Squadron and foster learning and growth among peers. Something as simple as a couple photos of your latest project and a caption or two describing what we're looking at would be enough. A short article explaining how you applied a new building or finishing technique would be an interesting read. If you've attended an event recently, you could summarize your experience in just a couple paragraphs.

Ideas

Here are just a few ideas based on things we all do:

- ◆ Take two snapshots of your airplane the next time you have it at the field. Come up with a two-sentence caption for each photo and send those four things to me.
- ◆ Take two snapshots of whatever project is on your workbench, come up with captions, and send 'em in. Do that once a month and by the time first-flight day arrives, you'll have a nice build story you can show around.
- ◆ Write a paragraph or two about how you solved a tricky programming problem on your new radio.
- ◆ Editorialize on your thoughts about the FAA's Remote ID rulings.
- ◆ Show a tool you've recently acquired, or one you've been using for years, and how you use it in your modeling efforts.
- ◆ Describe any new equipment, flight stand, tool caddy, starter, truck bed modification, etc.



- ◆ Review a set of plans you're going to use for your next (or current) project.
- ◆ Show off your latest cockpit detailing effort.
- ◆ Write a brief description of a new engine, radio, retract system, gyro, etc. that you've used recently or have been using for a long time.

How to Submit Content

- ◆ **For photos**, use any camera you have handy. Cell phone, pocket camera, GoPro, or DSLR will work fine. Don't worry about perfect composition as I'll crop things to make them fit. Just make sure there's enough light.
- ◆ **For text**, use any text editor or word processor you prefer—I can read them all. I can even use hard copy (typed or hand-written) if that's all you have. If you're not comfortable with electronics then call me and we'll talk.
- ◆ **To submit material** use whatever means suits you. Email is best because it's quick and doesn't require any extra steps. Text messaging via cell phone is also good but photos sometimes get "optimized" when sent from iPhones. Hard copy can be mailed via US Mail or just handed to me or any board member.

Think About It...

This hobby of ours is incredibly complex with lots of areas to explore and become an expert. In fact, it's so complex that I can guarantee that you and every single Squadron member knows *something* about it that no one else knows.

Think about sharing that knowledge. 

REMOTE ID ENFORCEMENT BEGINS!

[ed note: The FAA's new Remote ID regulations were to have been in place in September 2023, and they were. But at the last minute, the FAA delayed enforcement of the regulations until 03/16/2024, which is right around the corner. The AMA published a nice reminder article in the March 2024 Model Aviation magazine that I'm including here for those of you who might not read MA. OCMA Field is a FRIA site so as long as you fly there you don't need a Remote ID transponder but you do need to carry your FAA UAS registration card.]

by Chrystal Pearson
AMA Director of Government Relations

ON MARCH 16, 2024, the FAA will begin enforcing the remote identification (Remote ID) of uncrewed aircraft systems (UAS). The following is a quick refresher on the topic and how to comply.

Q: Who needs to comply with Remote ID?

A: All radio-controlled aircraft that weigh more than 0.55 pounds (250 grams) must comply. UAS include both traditional model aircraft and drones.

Q: How do I comply?

A: The three ways to comply are to operate a Standard Remote ID UAS; attach an after-market broadcast module to the UAS; or fly at an FAA-Recognized Identification Area (FRIA).

Q: How do I know if my UAS is equipped with Standard Remote ID?

A: Most in our community will not meet the Remote ID rule with this option, because only complete, off-the-shelf UAS will have standard Remote ID built in. If you do purchase a complete system and are unsure if it meets the requirements, you can search its serial number at this site:

<https://uasdoc.faa.gov/listdocs>

If it is not found, it does not meet the requirements for standard Remote ID.

Q: How do I comply with the rule through the broadcast module option?

A: There are several broadcast modules currently available. They differ in price, features, and options, so it is important to choose the module that works best for you. Visit:

<https://amablog.modelaircraft.org/amagov/2023/03/29/remote-id-broadcast-module-update/>

It might be a helpful resource.

Q: Do I need to purchase a module for each of my aircraft?

A: No. Broadcast modules can be moved from aircraft to aircraft. You certainly can purchase more than one, but recreational operators are not required to have a module for each of their aircraft. Be sure to add the broadcast module to your FAA DroneZone dashboard.

Q: Where can I find a FRIA or determine whether my flying site has this status?

A: The AMA Club Finder tool has a filter option for FRIAs at:

www.modelaircraft.org/club-finder

You can search by city/state and check the box next to FRIA sites; only sites that are FRIA approved will be included in the search. The FAA's UAS Facility Map has also been updated to include FRIA sites across the country.

Q: How do I apply for FRIA status for my flying site?

A: Please send an email to fria@modelaircraft.org to get started. The AMA Government Affairs department has a blog with additional information that we encourage members to regularly review. Visit:

<https://amablog.modelaircraft.org/amagov>

to remain up to date.



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HOW TO: CUSTOM COCKPIT FOR AN ARF

[led note: The following article was originally published in the December 2003 Radio Control Modeler magazine. It demonstrates a practical approach to adding a little or a lot of cockpit detail to your latest miniature masterpiece. The article originally targeted ARFs but the methods can be used for any model.]

by Christopher Wolfe

As a result of building plastic models prolifically since about four years of age, I now employ detailing techniques I've used on plastics and apply them to finishing my scale R/C aircraft. In addition to getting some creative juices flowing, adding detail is fun and also brings out the "realism" of a scale R/C aircraft project. In particular I enjoy cockpit detail for the "ooh" and "ahhhh" effect, but scale weathering and color and markings can also be enhanced. Recently, I completed work on a **BAe Hawk ARF** from **Jet Hangar Hobbies** and in the process I decided to add some detail to the cockpit. The techniques I will explain in this article reflect the specific steps I took in detailing the BAe Hawk ARF cockpit, but the same techniques can be utilized on any model. All drawings for adding these details to your Hawk can be downloaded here:

<https://www.jethangar.com>

Before detailing any model, a bit of research must be done to guarantee authenticity. I began by doing some research about the cockpit using *Aeroguide 1 - British Aerospace Hawk T Mk. 1* published by Aeolus Publishing Ltd. as my primary resource. After looking at the information, I determined the only things needed to transform a plain cockpit area into something deserving of a longer look were a good pilot figure, some headrests, and the use of a few simple techniques to enhance items already supplied in the kit. For this particular project, I decided to go for the TLAR (That Looks About Right) approach. When doing a scale competition aircraft, I would spend more time double-checking dimensions and scaling everything according to my resources, but for an ARF model, the TLAR approach is sufficient.

To begin, I needed to find the right pilot for the roughly 1:8 scale ARF Hawk. Based on the pictures I found, a full-size cockpit appeared to be relatively small thus causing the pilot to appear quite large inside the aircraft. The **Williams Brothers (#17200) 2" military pilot** was a good fit for the plastic cockpit floor supplied. Unfortunately, for a modern military jet, the helmet of the Williams Brothers pilot is something less than desirable. I found that **Blue**



Box Toys offers Military "Elite Force" full pilot figures and helmets that seem to be nearly an exact match for the Williams Brothers bust. Based on this, I created a hybrid Williams Brothers/"Elite Force" pilot bust. The "Elite Force" helmet comes on a bust that is glued to a flat base. Instead of fussing with removing the bust from the base, I took the Williams Brothers bust and removed the head from the neck up (right at the collar) using a Xacto #239 razor saw. Next I removed the head from the "Elite Force" bust (a sharp Xacto knife cuts the "Elite Force" bust material quite nicely) to match the Williams Brothers bust. To ensure I had enough room for error, I cut the "Elite Force" head where I knew some trimming would be required to achieve a good fit. With a little bit of trimming, I was able to achieve the desired result. **Figure 1** shows the hybrid pilot bust.

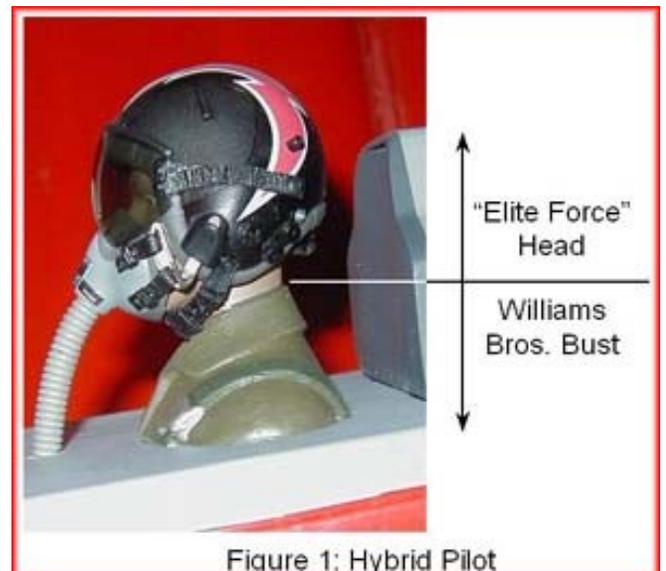


Figure 1: Hybrid Pilot

How To: Custom Cockpit for an ARF

The next step was to pre-paint the bust and the head using **Model Master** enamel paints, then glue the head to the bust using slow CA. Painting the pilot is purely discretionary to the builder, but for a scale military type pilot figure, the flight suit colors are typically olive drab in color. They do vary, however, so for your particular project, some research would be required to determine authenticity. Based on my research, I found that olive drab was a good match for the Hawk pilot. The following list of colors is what I used to paint my pilot figure (shown in **Figure 2**).

- ◆ Flight Suit - Olive Drab
- ◆ Seat Belts - Medium Green
- ◆ Belt Buckles, Suit Zipper - Steel
- ◆ Eyes - Flat White, Green (once painted, brush a little gloss clear over the eyes to get a more realistic look)
- ◆ Skin Color - Dark Tan
- ◆ Eyebrows - Dark Brown



Figure 2: Finished Pilot

Once the pilot was completed, I moved on to adding some details to the cockpit itself. In the Bae Hawk kit, the premolded cockpit floor lends itself well to some easy detailing which produces a more realistic appearance.

I determined that some TLAR scale seat backs were in order. Using my documentation, I came up with a shape that replicated fairly well the aircraft ejection seat backs in approximately 1:8 scale. I built the seat backs out of 1/16" balsa wood. **Figure 3** gives a dimensioned 3-view of the headrest and shows the construction method employed.

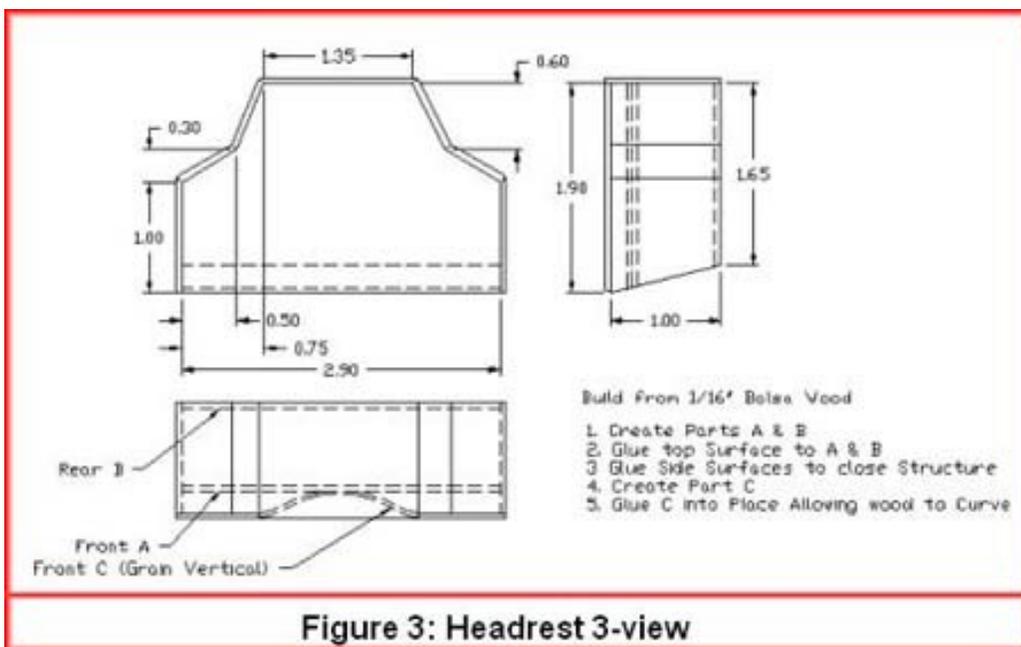


Figure 3: Headrest 3-view

Once completely built up, I coated the entire wood exterior with slow CA to seal the surface and eliminate the wood grain texture. I then hit it with a little accelerator and sanded the glue smooth using 120-grit sandpaper. Next I put on a hefty coat of primer (US Chemicals lacquer or equivalent sandable primer is recommended). I repeated this step a second time and finally sprayed a third coat of primer onto the seat. At this point, voids were filled with 3M glazing putty spot filler. Once the putty had cured, the parts were sanded smooth (some additional filling may be required if you notice additional voids), then final sanded

the entire exterior surface with 600-grit sandpaper. After applying a final light coat of primer, the seat back was paint-ready. To attain a crisp, hard line between the seat and the headrest colors, I used 3M 1/8th inch "fine line" tape to mask the surface. The following colors were used to paint the seat backs. The finished headrest is shown in **Figure 4**.

- ◆ Flight Suit - Olive Drab
- ◆ Seat Belts - Medium Green

How To: Custom Cockpit for an ARF

Another easy detail to add to the BAe Hawk cockpit is the instrument panel hood. This feature acts as a shade for the instruments on the full size aircraft. I made this detail from a 3x5 index card. The shape is given in **Figure 5**; while **Figure 6** shows the detail up close. I lightly scored each of the breaks with an Xacto knife and a ruler to get a nice crisp corner, then used thin CA to glue the patterns to the instrument panel surface.

The BAe Hawk kit also comes with an instrument panel “sticker” which has a glossy finish. To give this sticker a more scale appearance, I took a Scotch-Brite pad and scoured the surface. I then sprayed Model Master Dull Coat over the surface to give the instrument panel an overall dull finish. Once the dull coat had dried, I brushed Model Master Gloss Coat over each of the instrument faces (only) to simulate the glass surface over each instrument.

The last detail I added to the cockpit was the HUD (Head-Up Display). To achieve this, all that was needed was some spare clear plastic. I actually used some of the plastic cut away from the canopy itself from which I cut a small rectangle roughly .5"x.75". I glued the HUDs onto a prefinished piece of 1/64" plywood at an angle that looked about right (there's that TLAR effect again!), added two supports on either side, and the assembly was then glued onto the instrument panel. **Figure 7** illustrates the final results.

There you have it! The addition of time and the addition of some small features yields a nicely detailed, personalized cockpit to enhance your ARF while adding a more scale dimension to your model. As stated in the introduction, any and all of these techniques can be used on any aircraft. You'll be surprised how a few small things can add an overall big scale effect, giving your model the appearance of a full sized aircraft in miniature. 



Figure 4: Finished Headrest

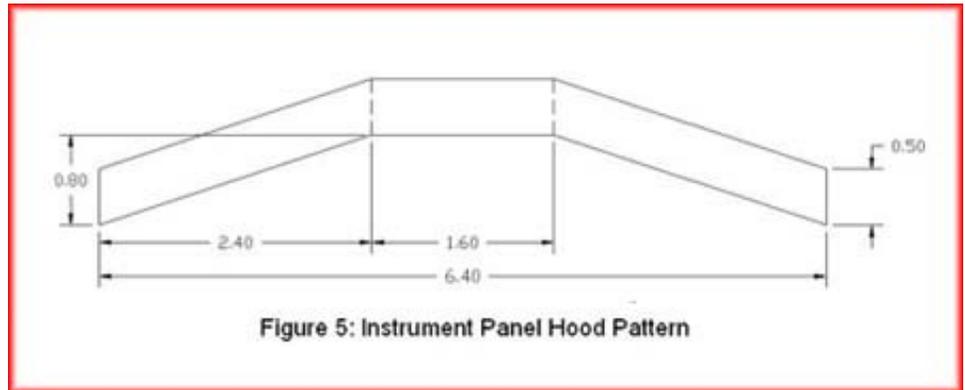


Figure 5: Instrument Panel Hood Pattern



Figure 6: Finished Instrument Panel Hood

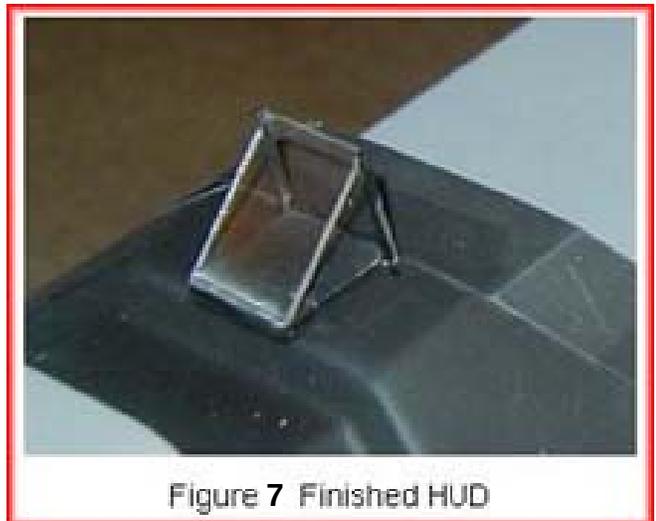


Figure 7: Finished HUD



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DOCUMENTATION: RYAN NAVION

The NAA/Ryan/TUSCO Navion is a versatile aircraft renowned for its performance and adaptability. It was introduced in the 1940s and was still in production in the mid-1970s. Designed by North American Aviation, this single-engine, four-seat aircraft served various purposes, ranging from civilian use to military applications. It was envisioned as an aircraft that would perfectly match the expected postwar boom in civilian aviation. It was designed along the general lines of, and by the same company which produced the P-51 Mustang.

The Navion quickly gained popularity among private pilots for its spacious cabin and reliable performance. However, its versatility didn't end there. The Navion was also put to use by the US military, particularly the USAF and US Army, for roles such as liaison, observation, and training. Its robust construction and stable flight characteristics made it an ideal platform for these tasks.

North American built 1,100 Navions and sold 250 of them to the military so it is a legitimate warbird. Designated by the USAF in 1947 as L-17 (and later U-18), the Navion had the singularly unimaginative nickname of "Navion." It went through several modifications and upgrades before being retired in 1963. On the civilian side the Navion was very popular in the late 1940s until the Beech Bonanza made its appearance. Sales dropped off after that and North American sold the rights to Ryan Aircraft.

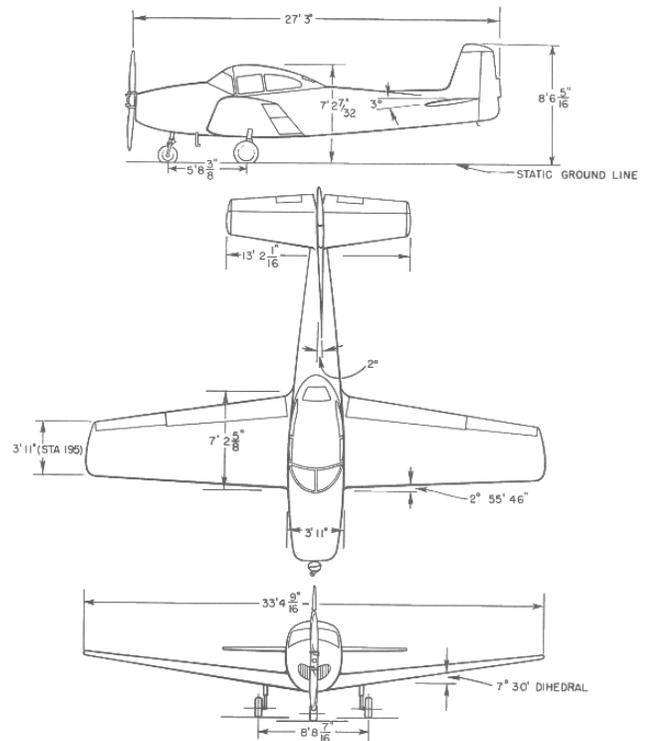
Over its nearly three-decade production run, the Navion earned a reputation for its durability, range, and adaptability, proving itself as a reliable workhorse in both civilian and military operations. Today, despite its production ceasing in 1976, the Navion remains cherished by aviation enthusiasts and collectors worldwide.

What's Not to Love About This Airplane?

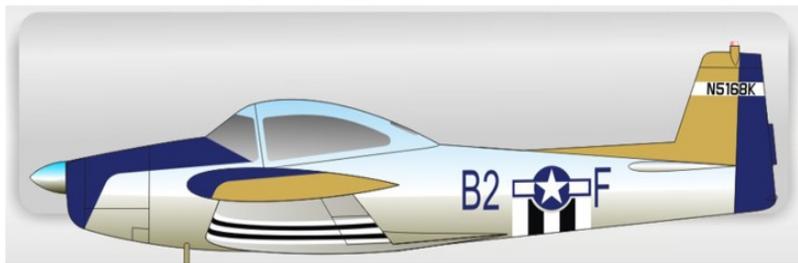
A total of 2,469 Navions were manufactured by all parties with 246 of these being L-17s. There are tons of variants, color schemes, and civilian add-ons. There's a twin version, long-range variant with wingtip tanks, a radial version, and even a tri-motor.

We have access to an L-17B at Planes of Fame if you need documentation.

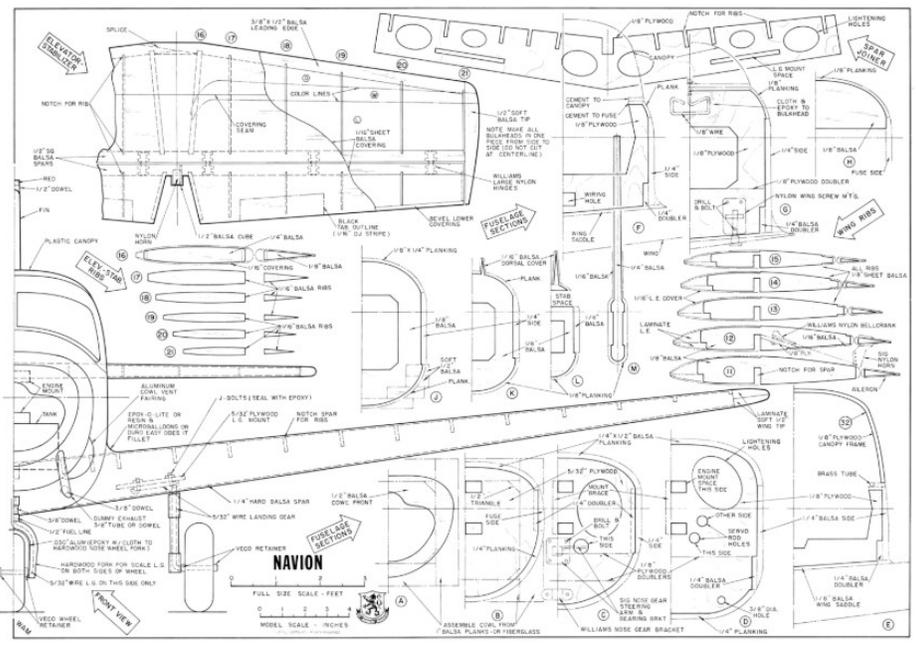
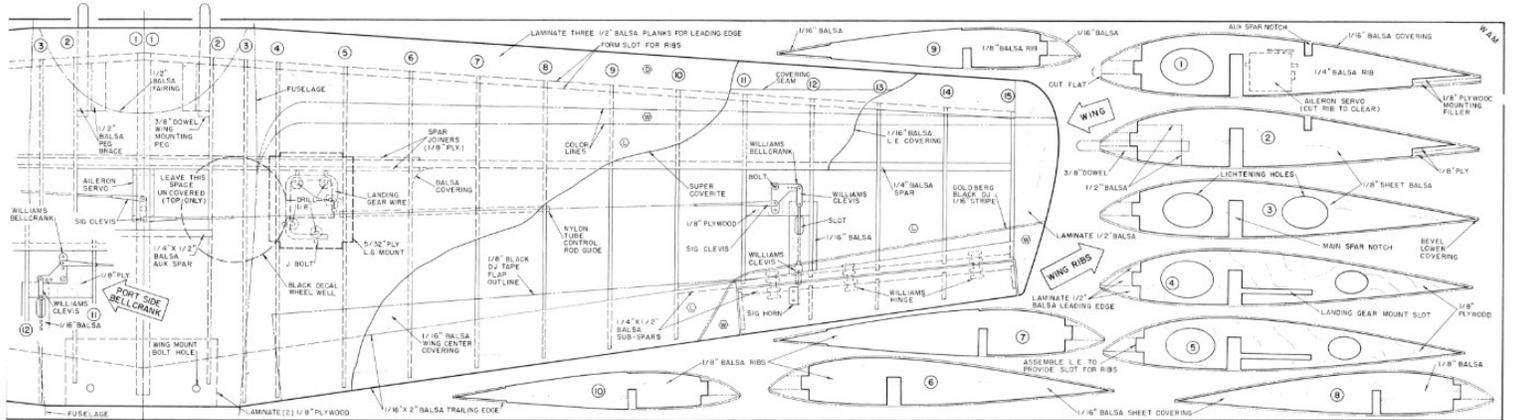
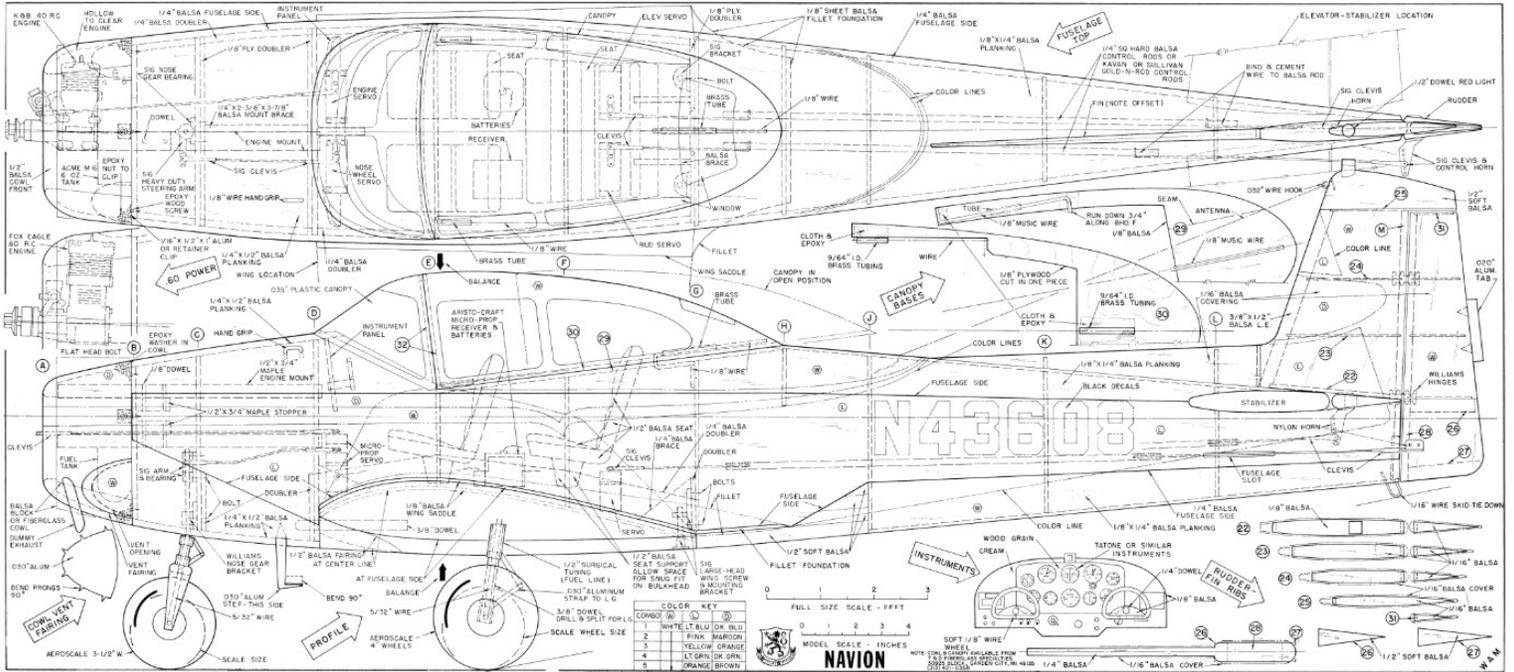
Let the Editor know if you'd like more details.



Documentation: Ryan Navion



Documentation: Ryan Navion



Documentation: Ryan Navion



UPCOMING EVENTS

Special Note Regarding Events

A list of upcoming scale events that are easily reachable from Southern California is included here. We encourage everyone to participate in as many of these events as possible in order to show support for clubs that have gone through the same difficulties that the Scale Squadron has experienced recently. Remember that when you attend any of these events, ***you are an ambassador of the Scale Squadron.*** Be sure to mention your affiliation with the Scale Squadron and represent us well! (Also, bring back lots of photos and get them off to **Eric Puchalski** so they can be included in the next newsletter.)

Date	Host & Location	Event & Summary
Mar 14-17	Sun Valley Fliers Cave Creek, AZ	Arizona Warbirds & Classics The One Eighth Air Force has staged a scale event for over 40 years in March & the tradition continues. Fantastic Phoenix weather, 650 ft runway with 150 extension on each end, not a tree in sight. Any size Classic Scale, Scale Jets & Warbirds.
Mar 16-17	AMA Fairplex-Pomona, CA	California RC Super Show Get your tickets & mark your calendars for the largest & most exciting RC show in SoCal! Sponsored by the AMA, this is <i>the</i> place to see the latest planes & gear, find bargains & enjoy pilot demos. Top RC brands, non-stop flight show featuring pro pilots, largest swap shop in SoCal, RC scale static contest, discounts, raffles & more! Your ticket also gets you into the California Overland Adventure & Power Sports Show, happening the same weekend at the Fairplex.
Apr 5-6	Arizona Model Aviators Mesa, AZ	Gunsmoke Scale Classic Scale Masters Qualifier. Competition in: Expert, Team Scale, Advanced, ProAm Pro, ProAm Sportsman. Bring your scale airplane & come compete with us using AMS rules and classes.
Apr 19-20	Pomona Valley Model Airplane Club Prado Airpark Chino, CA	Wings Over Chino Scale Fly-In We welcome all scale R/C models of warbirds, helicopters, Golden Age & civilian aircraft. Noon time demos, raffles, awards for pilots & more. No turbine powered aircraft. Registration \$45, reserved pits \$20.
Jun 27-30	Scale Squadron of SoCal OCMA Field Irvine, CA	Warbirds & Classics 2024 World-famous scale fun-fly for all types & sizes of anything that looks like a model of a full-scale prototype (no turbines or drones). Awards given. Newly paved 600' runway. Friday night early bird party, Saturday night banquet, on-site lunch, overnight dry camping & vendors. Giant raffle with proceeds going to the Semper Fi Fund. Pilot fee covers any number of models. Fun, Food & Frolic!

Errors & Omissions:

If you note any errors in any information in this list or the flyers on the following pages, please contact **Eric Puchalski** or any of the members of the Scale Squadron Board of Directors. If your club is hosting a scale-themed event that's not on this list, contact Eric to get the event added to the list. If you have flyers, an informational website, or online registration page we would be happy to include that in this section as well.

B Bonnie and Brian O'Meara Present **B**

WARBIRDS AND CLASSICS



MARCH 14-17 **ARIZONA** 2024

Following in the tradition of the 1/8th Air Force Spring Scale Fly- In!

COME ENJOY ARIZONA'S BIG BLUE SKIES OF MARCH!

- PROCEEDS TO CHILDRENS' CANCER FOUNDATION
- NOONTIME FOAMY FLYING
- DAWN PATROL & WARBIRD GAGGLES
- 5 FLIGHT LINES
- \$50 LANDING FEE
- TENTS AVAILABLE
- STEAK DINNER
- REGISTER ONLINE AT EVENTS.RCNATION.COM



Sun Valley Fliers RC Flying Field
26600 N Cave Creek Dam Rd, Phoenix, AZ

REGISTER ONLINE @ EVENTS.RCNATION.COM

**FOR FURTHER INFORMATION:
BRIAN O'MEARA (720) 937-3944**

California RC SUPERSHOW



MARCH 16-17, 2024 | Fairplex-Pomona, California

SPONSORED BY AMA - ACADEMY OF MODEL AERONAUTICS



Get your tickets and mark your calendars for the largest and most exciting RC show in SoCal! Sponsored by the **Academy of Model Aeronautics (AMA)**, the **California RC Super Show** is **THE** place to see the latest planes and gear, find bargains, and enjoy pro pilot demos.

- **Top RC brands—check out the latest planes & gear**
- **Non-stop flight show featuring pro pilots**
- **Largest swap shop in SoCal—deals galore!**
- **RC scale static contest**
- **Discounts, raffles & more!**

Plus, your ticket gets you into the **California Overland Adventure & Power Sports Show**, happening the same weekend at the Fairplex!

2024 GunSmoke Scale Classic

Scale Competition

New 1 Day
Participation
Option



April 5,6
(Friday & Saturday)

First Time Competitor & 2023 ProAm-Sport Winner Richard Wyant

Event Information

- Entry Fee: \$50 (waived for 1st time competitors)
- 50% Entry Fee Discount for NASA Joins
- Plaques for 1-3 Places and Special Awards
- Arizona State Scale Champion – Most total pts
- Best 2 Flight Rounds are Scored
- Two Flight Round Option on Saturday for 520
- Overnight Parking Available by Reservation
- Spectator Parking: \$10 per Vehicle
- Concession Stand Fri & Sat
- AMA Rules at: www.modelaircraft.org
- AMA Sanction #15809

AMA Rules & Classes

512 Expert Sport Scale (Expert)
523 Open Scale (Advanced)
522 Team Scale (Team)
520 Pro-Am Sportsman (ProAm Sportsman)
520 Pro-Am Pro (ProAm Pro)
515 Designer Scale

Schedule

- Thursday – Open Flying
- Friday – Static Judging, Flight Rnd #1 & #2
- Saturday – Flight Rnd #3 & #4, Awards
* Including 1 Day Competitors



Hosted by ARIZONA MODEL AVIATORS

Superstition Airpark, Mesa AZ www.azmodelaviators.com



Sponsored by National Association of Scale Aeromodelers

AMA Scale Aeromodeling SIG www.nasascale.org

Additional event info at our Facebook page
["GunSmoke Scale Classic"](#)

CD: Tim Dickey – tdickey2@icloud.com – (480) 540-7553



WINGS OVER CHINO

APRIL 19-20, 2024

PRADO AIRPARK

Wings Over Chino Scale Fly-in hosted by the Pomona Valley Model Airplane club @ Prado Airpark welcomes all scale radio control models of warbirds, helicopters, golden age and civilian aircraft. Noon time demos, raffels, awards for pilots and more.
No turbine powered aircraft.

**Reserved
pits spaces
starting at \$20**

**PILOT ENTRY
\$45.00
INCLUDES LUNCH**

www.PVMAC.com

**17202 CUCAMONGA AVE
CORONA, CA 92880**



Scale Modelers, Pilots & Fans!

Public
Welcome!

FREE for
Spectators!



AMA Sanction No. 15703

17th Annual Warbirds & Classics Scale Fly-In

OCMA Field (Irvine, CA)

Paved 600ft Runway, Friday Night Party, Saturday Night Banquet (Blake's BBQ), Reserved Pit Areas, On-Site R/V Parking & More!

In Support of USMC Semper Paratus & America's Fund

ENTRY FEE: \$50.00 per Pilot (Scale Aircraft Only)

Includes 3 Days of Flying, Friday, Saturday & Sunday Lunch.

Event T-Shirts Available Online & at the Event.

Registration: www.ScaleSquadron.com

Contest Director: [Randy Wilbur](mailto:rwilbur@videotecheng.com) (rwilbur@videotecheng.com)

- ◆ Saturday Night Banquet
- ◆ Pit Reservations: \$25.00/pilot (OK to share)
- ◆ AMA membership required
- ◆ FAA UAS registration required & must appear on plane
- ◆ No Turbines
- ◆ No Hovering or 3D flying

Friday-Sunday, June 28-30 2024

Advancing & Promoting the Hobby of Remotely Controlled Scale Miniature Aircraft

Many people from all walks of life find it fascinating to produce a miniature working replica of a full-size object, be it a doll house, sailing ship, or operating steam locomotive. In our case it is our passion for flying machines that motivates Scale Squadron members.

Today as scale modelers we pursue nearly every possible aviation subject with the confidence that not only will our project be successful, but that it may well outperform that of its full-scale counterpart.

Squadron members delight in the pursuit of authenticity for scale projects. This requires research and documentation of specific aircraft and their variants.

Many of the flying replicas thus created are of Museum Quality and our members take to the skies with these flying miniatures regularly and successfully.

On the other hand, not everyone wants to make a scale masterpiece. That's OK, too! Whatever pleases you is what counts. Whether you are kitbashing, volunteering at charity aviation events, or making molds from scratch for Scale Masters or AMA National Championship competition scale aircraft, Scale Squadron is a club that embraces all facets of scale aviation R/C modeling and the related community.

Scale Squadron Club Meetings are held on the

second Monday of each month at:

Green Valley Adult Clubhouse
17215 Los Jardines West
Fountain Valley, CA.

Meetings start at **7:00PM** and last about 2 hours.

Our meetings throughout the year include the usual club business as well as Member Show & Tell, Modeling How-Tos, Aviation and Industry presentations, and good ol' time social gathering to help enlighten and encourage our membership to push the boundaries in the art of Miniature Aircraft Replication. Visitors are always welcome. All members and visitors alike are encouraged to bring their latest scale models and projects!



JOIN US!

Membership Requirements

Membership in the Scale Squadron is open to all Academy of Model Aeronautics (AMA) members who are interested in safe formal and informal flying, including the research, building, and flying of Scale R/C Miniature Aircraft.

Membership Annual Dues are \$30.00 covering January 1 through December 31. Membership begins after verification of your current AMA membership card, your FAA Small UAS Certificate of Registration, and receipt of Scale Squadron membership dues.

The Scale Squadron Board reserves the right to deny or delay new membership approval.

Membership Benefits

Membership in the Scale Squadron includes:

- ◆ A subscription to the *Scale Dimension* monthly online newsletter.
- ◆ Squadron membership card and name tag.
- ◆ Advance notice of scale aircraft events.
- ◆ Annual Holiday Banquet for members and one guest.

Membership Meetings

Meetings are the second Monday of each month at 7:00pm. The December meeting includes the Annual Holiday Banquet and raffle drawings for anyone who presented a topic at any of the monthly meetings.

See the *Who We Are* section of this issue for details on the meeting location.

How to Join

If all this sounds like something you would like to be a part of, you can join us in a couple ways:

1. See the last page of this issue for a membership application. Fill out the form and submit it along with the required supporting documents.
2. Use the [Online Form](#) on the Squadron's website to provide basic information and pay the membership dues. A copy of the online form will be sent to you via email. Print this out and submit it with the required supporting documents.

How to Submit Your Application

All membership application submissions must include:

- ◆ A hard copy of the membership application form
- ◆ If the membership dues were not paid online then include a check for \$30.00 made payable to "Scale Squadron." Dues are not prorated if you join after January 1.
- ◆ A photocopy of your AMA membership card
- ◆ A photocopy of your FAA Small UAS Certificate of Registration

Mail these to:

Scale Squadron Membership
PO Box 8074
Fountain Valley, CA 92728

You will receive your membership card and instructions for how to obtain your key to the OCMA field by return mail in about a week.

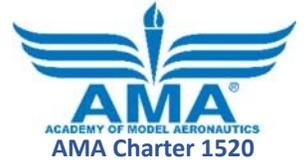


SCALE SQUADRON OF SOUTHERN CALIFORNIA

THE SCALE SQUADRON
OF
SOUTHERN CALIFORNIA



MEMBERSHIP APPLICATION



Membership in the Scale Squadron is open to all AMA members who are interested in safe, formal, and informal flying, including the research, building and flying of Scale R/C Miniature Aircraft. Membership Annual Dues are \$30.00 covering January 1 through December 31. Membership begins after verification of your current Academy of Model Aeronautics (AMA) Membership Card and receipt of Scale Squadron membership dues. Membership in the Scale Squadron includes a monthly newsletter and Squadron name tag. Meetings are the second Monday of each month at 7:00pm.

NEW RENEWAL Recommended by _____ DATE _____
Name _____ Spouse _____
Address _____ City _____
State _____ Zip Code _____ -- _____ Email _____ Birthday _____
Home Phone _____ Work _____ Ext _____ Mobile _____
AMA# _____ FAA _____ USSMA _____ FCC/Ham _____ EAA _____

MODELING INFORMATION

Years in R/C _____ Modeling Level: New Intermediate Expert Need Help
Interest Area: WW1 WWII Golden Age Civilian Vintage Jets
Private or Commercial Pilots License & Type Rating _____
Are you interested in Scale Competition? Yes No Would Require Assistance
How did you hear about the Scale Squadron? _____

GENERAL INFORMATION

Meeting Preferences. Check all areas that you would like to see at the monthly meetings

How To Videos Guest Speakers Scale Techniques Scale Contest Prep

Your Ideas _____

Would you be willing to assist at Scale Squadron Events? Yes No Maybe with Help

Registration Gate Flight Line Judging Scoring Cooking

Comments _____

NOTICE: This information is only for the Scale Squadron Data Base and will not be shared or sold to any outside agencies. Your information may be used in a Scale Squadron Membership Guide available only to paid members.