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SCALE DIMENSION

Official Newsletter of the Scale Squadron of Southern California











Founders & Proud Supporters of The U.S. Scale Masters Championships





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On the Cover

- 1. Juan Coria an instant after takeoff with his North American P-51D Mustang.
- 2. A pair of North
 American T-28
 Trojans flown in close
 formation by Carlos
 Coria & Max Huerta
 (inset) dropping in on
 some unfortunate
 target.



3. Supermarine Spitfire on a high-speed flyby at Warbirds & Classics 2023. Owner is not known.

The Scale Squadron of Southern California 2023 Board of Directors Commander Mike Greenshields mikegreenshields@gmail.com **Executive Officer** Eric Puchalski roadkill1954@gmail.com Treasurer Tim Cardin Tim.Cardin@CardinWest.Com **Secretary** Ioni Whitsitt whitsittjo@gmail.com **Board Members at Large** Larry Wolfe copsmom98@aol.com Gordon Truax gltruax@att.net Jon Perry jwperry77@gmail.com **Newsletter Editor** Eric Puchalski roadkill1954@gmail.com Mailing Address PO Box 8074 Fountain Valley, CA 92728 On the Web at: https://www.ScaleSquadron.com

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COMMANDER'S VIEW



Mike Greenshields
Commander

Fellow Flyers!

You are most likely one of the many who missed the September meeting. I say that because it was so lightly attended, it almost wasn't a meeting. (You missed Pizza Night, just sayin'). Even so, we had some killer conversations and I think we have moved forward on two important initiatives. (We also got to peer at Larry Wolfe's latest creation and wow, it's a beauty!!!)

First: Builder's Wing 2024

People have already signed up. Almost every person in attendance has or is working on a plane for Warbirds & Classics 2024. You're going to see new planes yet again in 2024, some pretty freaking astounding aircraft from the looks of it!

We'll publish the list in next month's newsletter once we hear from a few more people, but we're already off to a great start!

And even if you are not the official "presenter", we hope you continue to bring projects and share ideas.

Ace Hardware on Adams & Magnolia

9045 Adams Ave, Huntington Beach

This is where I work. It's my day job. I usually don't write about it much but I wanted to share a couple of things:

ZAP is available there. If you'd like some Zap, Zap-A-Gap, Slow Zap, Kicker, Z-Poxy, or Debonder (or maybe just some Zap-Ends) Ace Hardware where I work now stocks it.

K&S is available there. Ace Hardware Stores in many locations carry K&S to some extent. We recently brought in the K&S 36" music wire and tubing rack and the latest 12" selection of brass, copper, and aluminum tubing, sticks, and sheets. It's a flashback to when I worked at Hobby Shack!

Fastener Set: This particular Ace location also carries a HUGE selection of screws, nuts, and a zillion other assortments of "solutions." From motor brushes, to airline connectors, there's over 10,000 different items available there, all shoppable by you. No counter, no looking through a catalog. You just walk right up and treasure-hunt. And sure, that means you have to sift through the giant lag-bolts and 5 gallon boxes of dry-wall screws, but there's sooo much there that applies to our hobby! It really is worth a look.

Let's have some great flying October, and share all those latest goodies you picked up at the OCMA Swap meeting last weekend!!

Meeting on the 9th, Flying on the 15th! That's my story and I'm sticking to it..

Mike Greenshields, Commander Commander@ScaleSquadron.com



Starting in January, at least one club member each month will be scheduled to demonstrate a product, a technique, or some other modeling insight. There is so much knowledge in this club, we really want to share the wealth of knowledge that makes so many of you such innovators.

Between now and the end of December, please keep an eye out for a volunteer list to be a presenter.



LEADING EDGE

Wow! September was an exciting month! I was able to get lots of flying in (now that I have a more than one flyable airplane), I picked up one or two new projects (I know, I know—I promise I'll finish one sooner or later), and my wife and I took a couple very nice vacations from retirement. Overall, I didn't spend as much time on this wonderful hobby as I would have liked but I'm still happy with the way the month went.

Warbirds & Classics

This month we're including the third and final batch of photos of models from Warbirds & Classics 2023 that was held last July. As with the other photos, these are in no particular order. If you don't see a photo of your pride and joy in this batch and it didn't appear in the August or September newsletter either, then unfortunately we didn't get any usable pictures of it.

Reno Air Races

I had an opportunity to spend a day at the Reno Air Races in September and I've provided an article that touches on the experience. My wife and I were able to fold that visit to the races into a recent RV trip through the Eastern Sierras. We were only able to spend one day at the event (no, it wasn't that day) and I've tried to capture at least part of the experience. If you've never been to the Air Races then I'd encourage you to go (wherever they end up in 2024). If you have been, then you'll understand how difficult it is to describe it in a few pages of text and photos. But despite that, I've tried beginning on Page 13.

Piper Cub Restoration

I promised myself that I'd never fly a Piper J-3 Cub as they are just about as common as pancakes and I can't imagine how I'd make one stand out. Well, it looks like I'm going to break that promise. I was presented with an offer I couldn't refuse and I'm now working on restoring a 1990s 1:4 scale Sig Piper J-3 Cub. I'm keeping an open mind on this project and you'll find the background (and my rationalization for breaking my promise to myself) on Page 8.

Louver Cutter

Last month I said I would build a louver cutter based on a design I found in an old model magazine. Turns out I didn't have time to do that in September so I'll try to get it in this month and let you know how it goes.



Eric Puchalski Newsletter Editor

Remote ID Delayed

I don't think it came as a surprise to anyone that the FAA has postponed full compliance with Remote ID requirements for six months. The new date is March 16, 2024. We devoted a few pages of last month's newsletter to Remote ID so if you're not sure what I'm talking about, I'd encourage you to browse the articles we published in the September newsletter. If you have any questions after that, drop me a line. According to the FAA's website, the primary reason for the delay was that "In making this decision, the FAA recognizes the unanticipated issues that some operators are experiencing finding some remote identification broadcast modules." My personal opinion (which is not necessarily the opinion of the Scale Squadron or its members) is that the FAA was swamped with the details to be worked out. Ouestions like: How will drone activity be monitored? How will the rule will be enforced? Which agency is responsible for enforcement? What exactly *are* the penalties and how will they be applied? Their statement that some "operators" are not able to find broadcast modules is purely CYA and meant to make it sound like they're doing us a favor. But again, this is just one man's opinion.

Have a tremendously happy October!





SEPTEMBER 2023 SQUADRON MEETING

Attendance was a little light at the September meeting but **Commander Mike Greenshields** did his usual terrific job of keeping things moving along and interesting. There was a lot of talk about the looming FAA Remote ID requirements. The major take-aways were that everyone should have their FAA ID on their airplanes. In addition, whenever flying, pilots should have their AMA card, FAA UAS registration card, and their TRUST certificate on their person when flying. If anyone has any questions about Remote ID, FAA UAS Registration, TRUST, or anything else relating to the new FAA requirements they should contact their favorite Squadron board member (see **Page 2**). After all that heated discussion it was then time for **Show & Tell**...

Larry Wolfe has always liked the looks of the Spad XIII.C1. The Spad was one of the best performing aircraft of WWI. Larry is building this 63" wingspan model from a set of Bob Rich plans that were published in *RC Modeler* magazine in October, 1993. Larry has researched those plans and has declared them "pretty good." He's looking forward to having another terrific WWI scale model to fly.





Some Aviation Wisdom

- You've never been really lost until you've been lost at Mach 3.
- The only time you have too much fuel is when you're on fire.
- When one engine fails on a twin-engine airplane, you always have enough power left to get you to the scene of the crash.
- Without ammunition, the USAF would be just another expensive flying club.
- Weather forecasts are just horoscopes with numbers.

- Pilots and air traffic controllers do have one thing in common. If a pilot screws up, the pilot dies. If an ATC screws up, the same thing happens.
- Airspeed, altitude, brains, and luck—at least two are needed to successfully complete a flight.
- If something hasn't broken on your helicopter, it's about to.
- Never stop flying the airplane until the rudder reaches the cockpit.

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MONTHLY MEETING NIGHT

Monday October 9, 2023 7:00pm

The October 2023 Meeting is On!

It looks like everyone will be back from trips and vacations so we expect a great turnout. This would be a terrific time to show up with a completed model or a work in progress to show off to the rest of the crew. And in case you think it's time to settle back and enjoy some quiet time, keep in mind that the **Squadron Holiday Party** is less than 90 days away!

Remember that visitors are always welcome so don't be shy about bringing someone. And also remember that anyone with *anything* for **Show & Tel**l will receive a raffle ticket for special prizes to be raffled off at the Squadron Holiday Party 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.

SAM WRIGHT SALE EVENT

Sam Wright's family has a set a time and location to sell off Sam's hobby items. Items up for sale include everything from ready-to-fly models to tools, materials, and radio equipment. Sam was a meticulous modeler who only used top-notch stuff—there's bound to be something of interest to everyone.

Here are the details:

Saturday, November 11 & Sunday, November 12, 2023

10:00am to 3:00pm both days 17 Via Anadeja, RSM, CA 92688

Partial list of airplanes for sale with suggested sales price:

P-51 Mustang w/engine & servos	. \$	500
Aero Commander w/parts, Robart gear & electric motors		
Includes 2 fuselages	. \$1	,600
Globe Swift w/parts & gear **	. \$	800
T-28 Trojan w/wings (needs battery)	\$	350
Stearman	. \$	300
Spad (wooden w/cowl)	\$	300
A-7 Corsair II (Jet Hangar)	. \$	300
Cessna 195 fuselage	\$	50
Chipmunk	. \$	50
F-9 Cougar w/gear	. \$	
A-36 w/fuselage, gear & spinner	\$	550
Pylon racer #9	\$	175
F100 Super Saber (foam)	\$	200
P-51 Mustang (foam)		50

Other miscellaneous items:

EME engine w/auto start\$	250
DLE engine (new)\$	350
Stinger engine (new) w/Bowman rings installed\$	100
Batteries w/safe box\$	100

Various plastic kits; some vintage

Various **servos**

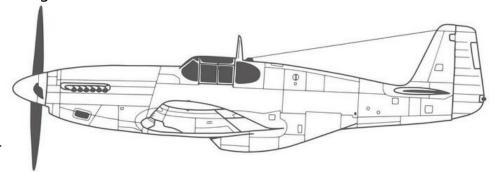
Nitro fluid (12)

Vintage **Futaba radio**

Polytone, (various colors, new and open)

Various used engines

Plans, balsa wood & other "airplane" hobby items



ERIC P'S PIPER CUB RESTORATION - PART 1

by Eric Puchalski

Well, it looks like I'll be doing something that I promised myself I'd never do: I'm going to restore and fly a Piper J-3 Cub.



Now, don't go away thinking that I have anything against Cubs because I don't (mostly)—I just think there are too many of them. I've always felt that there are already enough of certain models flying around. Piper Cubs, P-51 Mustangs, P-47 Thunderbolts, and in recent years F-16 Fighting Falcons, F-15 Eagles, F-86 Sabers, and a few others have become commonplace.

Although I still believe the modeling world doesn't really need another Piper Cub, I'm rationalizing it like this: First, I'm not really adding to the Cub census since this is a refurbishment of an existing model that's flown before. Second, I've never flown a model this large (104") and I've never had an airplane with a gas engine. So this will give me a little experience with a large gas model before my **Stinson SR-9 Reliant** rolls out.

Makes sense, right?

So, Here's the Story...

I was visiting with my friend, **Chris Spangenberg** in late September and he mentioned that he had acquired a 1:4 scale Cub from an estate sale. He didn't know much about it other than it looked pretty complete, it wasn't badly built, and the price was right. After taking it home and looking at it for a while he decided he didn't really need another giant airplane getting in his way so he asked me if I wanted it. I thought about it and after clearing my conscience with the justifications I already mentioned, I loaded it in my car.

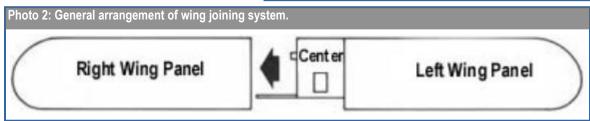
First Impressions

This model was built from a Sig kit (Kit No. RC-48, *upper right image*) so the original materials are top notch. Chris

was right that the model is mostly sound but it's clear that it's gone through some hard times since it was originally built, which was probably sometime in the 1990s. As near as I can tell, it's also gone through four sets of hands before it got to me.









Eric Puchalski's Piper Cub Restoration - Part 1

The **Original Builder** (we'll call that person "**OB**") clearly cared about the model and wanted it to look right. OB's soldering and finishing skills weren't the greatest but he knew how to build, shape, and cover a model. He wasn't a scale guy as the model is missing some pretty obvious scale details. It looks like he flew the model at a field where weeds and tumbleweeds occasionally stuck up their pointy fingers and poked holes in things. His response to this was to clear the hole, put new fabric down and reapply paint that was the right color—a proper patch.

The **second owner** was more of an "I'd like it to look good but I don't want to spend a lot of time on it" kind of guy. There are globs of epoxy here and there that emphasize that. I'll pick as many of these out as I can but some are in places that are inaccessible without doing a lot of disassembly that I don't want to do.

The **third owner** wanted to "just do what it takes to get it back in the air." This is evidenced by the clear packing tape over holes in the wing and fuselage along with CA and epoxy patches sprayed over with some yellow color that wasn't a very good match. Oh, and there's an occasional shrink film patch covering some of the smaller holes.

The **fourth owner** was Chris but he wasn't more than a caretaker until he guided it into my hands.

Evaluation

I don't have plans but I do have a copy of the assembly manual. Plans are still available from Sig if I decide I need them. After I'd spent some time scraping off the old dust and grime, I found a perfect semi-gloss finish underneath it all (**Photo 1**). In the areas where there aren't any holes (these appear to be mostly hangar rash) the covering and paint actually looks pretty good. I'll do my best to disturb this as little as possible.

It doesn't appear that anyone changed the engine (there aren't a bunch of holes in the firewall, **Photo 12**) and it didn't have an engine in it when I got it. No matter, as I plan to install a 25CC Chinese engine-of-noname.

The wing has an unusual configuration. Most Cub models you see have a center section that's built solidly into the fuselage above the cabin. The two wing panels then plug into that center section. Sig thought they had a better idea and would have you assemble a complete wing from two pieces first and then attach that to the fuselage using a couple conventional wing hold-down bolts. While this might have seemed like a good design idea, in practice it means there are a number of odd interface areas associated with the wing/fuselage

Photo 4: Main wing/fuselage attachment. Note that someone tried to use packing take on the right wing panel.



Photo 6: Strut assembly was apparently done in a real hurry. I'll be making new ones.

Photo 7: Horizontal and vertical stab braces were never installed. It's a wonder only one side of the stab broke off.

Eric Puchalski's Piper Cub Restoration - Part 1

connection that offers a lot of opportunities for gaps and misalignment. It's a little hard to describe but **Photo 2** shows a top view of the configuration of the wing panels.

Somewhere along the line that wing joint took a real beating. There's some damage under the sheeting and the inside rib has pulled free from the rest of the wing (**Photo 4**). Also, the main wing joiner was broken and someone did a bad job repairing it (**Photo 3**). I'll be spending some time with this to get it back to something resembling right.

The landing gear is very simple and non-scale (Photo 5) but it appears solid and I won't do anything other than clean it up and use it as-is.

The main wing struts are pretty rough. The ends where aluminum inserts are glued into the wooden struts are clumsily wrapped in about six layers of ugly and painted over (Photo 6). I'll be making new struts out of shaped aluminum tubing. The jury struts were apparently never made as there are no attach points for them on either the main struts or the bottom of the wing. I'll be making a set of these as well.

As with the jury struts, the **horizontal and vertical stabilizer braces** were never installed. Given the fact that the only thing holding the horizontal stab together is a leading and training edge made of 1/4" balsa, I'm surprised the stab never folded in flight (**Photo 7**). I'll be adding hard points and braces to the tail.

Major Points That Need to be Addressed

- Main wing joint needs to be rebuilt (**Photo 3**).
- ◆ Left stab and elevator are broken off at the root (Photo 9). (This was the effect of hangar rash and not a flight failure.) This will need to be fixed and stab bracing wires installed.
- Lots of holes in the fabric of the fuselage and wing (Photo 8).
- No engine.
- Aileron push rods are directly in line with the attach points for the main struts (Photo 10). This necessitates an awkward and ugly push rod configuration. I'll move the aileron control horn to a location where the interference isn't such a problem.
- ◆ Cowl is broken into several pieces (**Photo 11**). OB apparently installed a twin four-stroke that looked kinda like a Continental. I'll be using a 25CC gas engine that will be mostly enclosed in the cowl. So, a new cowl or some repairs to the existing one will be required. I'll also add a kit to simulate the Continental heads.

Photo 8: A couple of the larger holes in the wing that will need to be patched. These appear to be hangar rash & not flight damage.



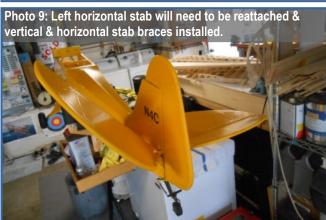


Photo 10: There *must* be a better way to connect the aileron servo to the control horn.



Photo 11: ABS Cowl will have to be repaired (my preference) or replaced.



Eric Puchalski's Piper Cub Restoration - Part 1

think I found one from Fiberglass Specialties that should do the trick.)

Summary

Well, that's about it. Chris was right that the airframe is pretty solid but there are still a lot of little things to address. I already have all the parts I need to get this thing back together and flying so there's no excuse for delay. With any luck, I should be able to have this bad boy up and about in a few weeks.

In future newsletters I'll provide updates on the various subassemblies as I work through them. In the mean time, if you have any questions, comments, suggestions, recommendations, guidance, advice, help, direction, information, enlightenment, hints, tips, pointers, ideas, opinions, secret documents, or any other dope that you think will help, just drop me a line at roadkill1954@gmail.com.

I'll keep you posted.

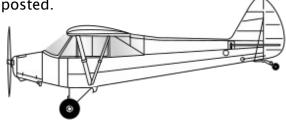


Photo 14: OB didn't want the main gear to break off. *Ever.* He used a total of 20 #6 sheet metal screws to attach it to the fuselage.



Photo 16: Interesting servo installation. That inverted one is for throttle. These are all giant-size servos that were popular during the 1990s.



Photo 12: Downside? No engine. Up side? Not a lot of holes that need to be plugged before installing a new engine.



Photo 13: ? Tail wheel could use a little Evapo-Rust buit otherwise ready to go.



Photo 15: Something you don't see every day... OB used 3-wire CAT-5 network cable for wing servo extensions. A little bit of overkill but, why the heck not?

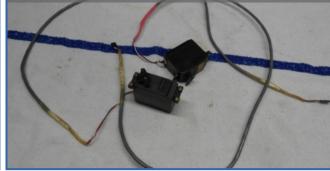


Photo 17: Everything broken down and ready for rework.



OCMA SWAP MEET

by Eric Puchalski

The **Bi-Annual OCMA Swap Meet** was held Saturday, September 30 from 7:00am to 11:00am at OCMA Field. The OCMA Swap Meet is usually held twice a year (March and September). As it happened, it was a perfect day for the event. It was a bit on the chilly side but the early morning sunlight made short work of that. Happily, there was no rain and no wind. All told there were about 25 sellers with everything from complete airplanes to unassembled kits, to bits and pieces of planes, and the equipment needed to support them.

Like you, I find myself buying or swapping for odds and ends that maybe I can use but, all too often, much of it ends up collecting dust in the back of a drawer somewhere. I usually make a point to attend at least one swap meet per year as a seller to help manage my piles of stuff. But this time I was there strictly as a shopper.

I scored a few things (a box of giant scale airplane plans, a set of retracts, some balsa sheet, and some other stuff) that I'm sure I'll be able to use sometime.

One very nice thing about these swap meets is that since they're attended by modelers, virtually everything you look at is a conversation starter. I met several guys who have been modelers for decades right here in Orange County. It was great to reminisce about the old days with guys who were going through it at the same time I was.

If you weren't able to make it, the photos will give you an idea of what you missed. All in all, this was a terrific event and I was glad for the opportunity to poke through piles of supplies and fill some gaps in the list of things I need. Now I'm looking forward to next March when I can bring some of it back out and move it on to the next happy modeler.







Photo 3: Randy Wilbur brought out a whole trailer full of stuff from storage and said there was plenty more where that came from.



Photo 5: The cool thing about the swap meet is that just when you think you've seen everything, along comes something unexpected.



FIELD TRIP: 2023 RENO AIR RACES

by Eric Puchalski

My wife and I recently loaded up the trailer and took another vacation from being retired. This time we spent a couple weeks exploring the Eastern Sierras along U.S. 395 and points north. As the timing worked out, we were just a few miles outside Reno, NV during the week of the 2023 National Championship Air Races at Reno Stead Airport. The Reno Air Races is a five-day event that was held September 13-17, 2023. My ever patient and accommodating wife agreed that the races wouldn't be too far outside our expected travel path, and there might be some other things in the area worth visiting so we worked it into the schedule.

Unfortunately, this was the last time the races would be held in Reno. Early in 2023, the Reno Tahoe Airport Authority (RTAA) notified the Reno Air Racing **Association (RARA)** that the event's 59-year run at Reno Stead airport would end in 2023. RTAA raised concerns about the event's impact on the airport, challenging economic conditions, rapid development in the area, and concerns about public safety. This despite a 2019 economic study done by the University of Nevada, Reno that calculated the total regional economic impact from the Air Races at about \$100 million annually just from out-oftown visitors. Apparently RTAA feels this loss will be offset by other events such as the glow from Burning Man, the Best in the West Nugget Rib Cook Off, the International Camel and Ostrich Races, the Great Reno Balloon Race, and something called Street Vibrations. I guess all we can do is wish them luck with that.

But enough ranting...

The RARA has been up front about their search for a new location for 2024 and beyond. They say they've had applications from something like 50 communities nationwide that would love to have the races and they've trimmed this list to about a half-dozen that they're considering. As of this writing, they say the 2024 air races are on but the location is TBD.

Before We Get To The Good Stuff...

As you all know, I've been working on a 1:5 scale **Stinson SR-9 Reliant** and I've been looking for decent documentation for detailing. I can't describe my first reaction when we walked into the civilian exhibit area and there it was: A fully-restored Stinson SR-9 (NC-18425) waiting for me (**Photos 1 & 2**). I wasn't able to talk with the owner but I did strike up a conversation with the guy who was keeping an eye on the beers. When I explained that I was building a scale model of an SR-9 and how great it would be to be able to do a close-up walk around with my



Photo 1: Imagine my surprise when the first airplane I set eyes on was a Stinson SR-9 Reliant; the prototype for the 1:5 scale model I'm building.



Photo 2: Being able to get up close and person with the fullsize airplane provides a ton of documentation for scale detail.



Photo 3: P-63 Kingcobra "Pretty Polly" lifting off for an Unlimited heat.



camera, he invited me in. (Seriously, who can resist a man with a camera after spending so much \$\$ on a rebuild and new paint job?)

I ended up with a couple hundred photos of things like how the wheel spats are attached to the struts, how the step ladders attach to the fuselage, hinges, aileron and flap details, cowl fasteners, tail wheel rigging, navigation lights, landing lights, gas tank caps, oil cooler, cockpit interior, and just about everything else I haven't been able to document from the Internet or other sources.

This alone made the trip worthwhile. The only down side is that I might have to change my color scheme to match NC-18425 since my wife really likes that paint scheme. But I can probably live with that.

The Races

I'd never been to an organized air race event so it took a while to get the hang of what was going on. What I finally figured out is that the entire day was organized around the races (duh!). The day we were there, there were 16 competition heats that included **STOL Drag**, **Formula 1**, **T-6**, **Sport**, **Jet**, and **Unlimited**. It was great that all of these classes were run on one day so we were able to experience races in six different classes. And this was *just one day* of the five-day event!

A typical race followed a profile looks something like this:

- Two "pace planes" take off. These are the guys who will corral and line up the racers before the start of the race.
- Racers take off one at a time and circle the field at about 1,000 AGL until everyone is in the air (Photo 3).
 There's a lot of radio chatter during this time to make sure everyone maintains safe separation. Sometimes they play this over the PA system.
- Pace planes organize everyone into a line abreast so everyone will hit the course at the same time (Photo 4).
- When everyone is lined up, one of the pace planes signals the start of the race and everyone drops into the race course.
- Racers fly their race at about 50' to 100' AGL (Photo 5). (Even the jets fly this low and they're doing around 500MPH!)
- When a racer gets the checkered flag, he or she pops up to about 1,000' AGL and waits for everyone else to finish (Photo 6). There's a lot of radio communication during this phase to keep things safe.
- When all racers have finished, pilots land (I believe in a pre-agreed sequence) and taxi back to the pits (Photo 7). The pace planes are the last ones down.

Photo 4: Six AT-6s and a pace plane (exiting on to the right) ready to drop in to the race course.



Photo 5: A group of Sport Class planes rounding the start/finish pylon at about 100' AGL.



Photo 6: A pair of AT-6s finishing 1st and 2nd about to clear the course and let the other planes finish.



Photo 7: P-51 "Miss America" taxiing back to the pits after completing an Unlimited heat.



The only trouble with this format is that from the time all the racers have taken off until the point where the pace plane signals that they're ready to start the race, there's about a 15- to 20-minute delay. Event organizers figured this out decades ago and, rather than have a big gap in activity before the start of a race, they put up a flight demo or some other performance during this time. This is done so smoothly that, as a spectator, I didn't even notice until after the eighth or tenth race. The effect is that the action never stops.

STOL - Who Knew?

Sometime over the past couple decades, short takeoff and landing (STOL) has become a highly competitive professional sport. Competitive STOL has everything: a national organization (National STOL); a national tour (The National STOL Series); a rule book, a number of classes based on airplane type, engine size, and modifications (exhibition, touring, bush, adventure, sport, and of course, unlimited); national standings; and a passionate (and loudly vocal) fan base.

The competitors are *very* serious about this sport. They fly specialized airplanes (**Photo 8**) with mission-specific engines, props, tires (**Photo 9**), and fuel blends. They have organized support teams that wear team uniforms and they have fancy trailers to carry their airplanes, equipment and crews. They sell t-shirts and other swag to help support their teams. (Oh, and they have a *lot* of fun when they hit the local bars at night. Don't ask how I know.)

The basic formula for STOL racing is that the airplane starts at a given point, gets at least 50 feet AGL, travels some agreed-upon distance (usually around 1,000 feet or so), then gets wheels down and the airplane stopped in the shortest distance. The shortest overall distance wins. (Elapsed time doesn't seem to be part of the equation.)

What we were treated to was a variation on that standard format called STOL Drag. Apparently, this is a revered and highly respected competition that puts a twist on the basic STOL flying by running something like a drag racing format. In STOL Drag, two aircraft wait side-by-side at the start line (with ample separation). On "GO," each aircraft takes off, stays only a dozen or so feet off the ground, flies at any altitude, lands, comes to a complete stop, does a 180-degree turn, takes off, and races back to the start line for the finish. Unlike "normal" STOL, STOL Drag is a timed event (Photo 10).

I have to admit that even though I'd never heard of STOL as a competitive event, I'm not surprised. After all, we all know that if you give boys toys that move, the next thing they're doing is racing them.

Oh, and it was a lot of fun to watch.

Photo 8: I'm not sure about the pilot or airplane but this guy looks ready for STOL action.



Photo 9: Some of the fancy propulsion & landing gear used on these STOL aircraft.



Photo 10: STOL Drag action with No. 44 showing as much drag as possible to dump airspeed before landing.



Photo 11:One of a pair of ANG F-15 Strike Eagles demonstrating why we still put these aircraft up against anything the rest of the world has to offer.



Military Demonstrations

Flying demonstrations of military equipment consisted of a very impressive show of two McDonnell Douglas F-15 Strike Eagles (Photo 11), a Boeing FA-18 Super Hornet (Photo 12), a Fairchild Republic A-10 Thunderbolt II (Photo 13) and a one-pass flyby of a Lockheed U-2 Dragon Lady (Photo 14). There were also lots of retired military aircraft both racing and providing stand-alone performances.

Flight demonstrations were well within good viewing range and there was no shortage of opportunities to get great photos.

Civilian Demonstrations

Demonstrations of civilian aircraft were provided by a **Beech F33C Bonanza** doing a full aerobatic schedule (**Photo 15**), a **Dassault Falcon 8X** executive jet (**Photo 16**), **Game Composites GB1 GameBird** aerobatic plane (**Photo 17**), and a **HondaJet Elite II** executive jet (**Photo 19**). The test pilots involved showed an amazing range of maneuverability for all of these aircraft. Most of these demonstrations occurred during the staging of the race heats.

Heritage Flights

Heritage Flights feature modern fighter and attack aircraft flying alongside World War II, Korea, and Vietnam-era planes in a dramatic display of our nation's air power history. Formations represent a living memorial to the men and women who have served, or are currently serving in the U.S. armed air forces. This day we were treated to two Heritage Flights: The first brought together an A-10 Thunderbolt and a P-51B Mustang (Photo 19). The second comprised an F8F Bearcat and an FA-18 Super Hornet (Photo 20). Both demonstrations were wonderfully executed and there was hardly a dry eye in the crowd.

Overall Impression

Given that this was my first trip to the Reno Air Races I had no idea what to expect, so I was open to most anything. Frankly, I was just hoping to get my money's worth and I did—in spades! My overall impression was that it was much like most airshows we've all attended but with a focus on racing. The static displays were pretty good overall but not on a par with Miramar or the old El Toro MCAS air shows. The races and air show components, however, were incomparable. There was *something* in the air virtually every minute of the day—either a race or a demonstration of some sort was going on all the time.

Concessions and food were about what we've come to expect. A lot of aviation-themed hats, t-shirts, laser-

Photo 12: FA-18 Super Hornet on a dirty pass right down show center.



Photo 13: An A-10 Thunderbolt II showing off its slow-speed flight characteristics.



Photo 14: Our one chance to see a Lockheed U-2 on flyby.



Photo 15: Beech F33C Bonanza showing off for the crowd.



engraved wood wall hangings, and lots of deep-fried food. But prices were reasonable (for 2023) and lines weren't too long. We brought some water but bought lunch and it wasn't the worst we'd ever had. All in all, the Reno Air Races was a terrific experience and I'm so happy that I had a chance to go before they had to move out.

Am I glad I went? You bet!

Would I go again? Depends on the location. I can't afford to travel too far but if the 2024 Air Races are within a day's drive of SoCal, *I'm in!*

Photo 16: Dassault Falcon 8X demonstration showing that even executive jets can be a bit "sporty."



Photo 17: The Game Composites GB1 GameBird
demonstration was pretty amazing and showed off all the

Photo 18: Who even knew Honda made an executive jet? But here's the HondaJet Elite II being put through its paces.



nere's the homaset Line ii being put through its paces.



Photo 19: Heritage Flight with a P-51B Mustang and A-10 Thunderbolt II.



Photo 20: Heritage Flight with an F8F Bearcat & an FA-18 Super Hornet.







21: This **C-17 Globemaster III** was flown in from Hickam AFB in Hawaii for the event.

22: The 8-bladed propellers on this **C-130 Hercules** assigned to the Nevada ANG are typical of a major upgrade project being undertaken by the USAF to switch from 4-bladed to 8-bladed propellers.





















23: A view of the grandstands showing the box seating and flight line farther in the distance.

24: Grumman G-111 Albatross showing Grumman's typically complex double- (triple?) articulated landing gear retract system.

25: The lovely and infinitely patient wife of your editor carefully examining a really cool paint job on the nose of a Cessna O-1 Bird Dog. (And probably wondering why the heck anyone would do that to the front of such a small airplane!)

26: This beautifully restored **Stinson L-5G Sentinel** was just perfect.

27: There were several rows of those STOL airplanes either waiting their turn to compete again or just being admired.

28: This **Globe Swift** showed an amazing finish that clearly represented lots of hours with the buffing machine.

29: A beautifully restored **Beechcraft Debonair** on display in the Civilian Display area.

30: Bell UH-i Iroquois (Huey) restored as it would have looked in service during the Vietnam conflict.

31: The business end of this B-25 Mitchell bomber "Pacific Princess" makes one wonder if it's a museum piece or the real deal getting ready to get back to work.

32: The Lockheed PV-2D Harpoon is a work in progress but is already looking great.

WARBIRDS & CLASSICS GALLERY - PART 3

Fokker DR.1 - Phil Bland

Power: DLA-116 Origin: Balsa USA kit WS: 94" Materials: Built-up Weight: 28 lbs Finish: Solartex & paint

North American T-28 Trojan - Dominic Amato



Grumman F8F Bearcat - Brian Young



British Aerospace Hawk T.1A - Frank Baker



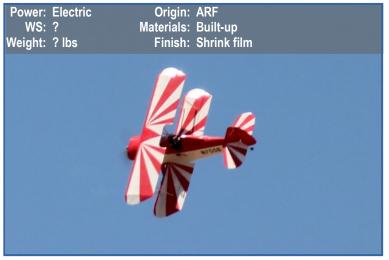
Waco YMF-5 - Pat Schreffler



Piper PA-18 Super Cub - Frank Kelly



Smith Miniplane - Ken Blasius



North American OV-10 Bronco - Robert Binkley



Piper L-4 Grasshopper



Yakovlev Yak-3 - Reuben Zadoyan



de Havilland DH-82A Tiger Moth



Taylorcraft Auster III - Keith Hedge



Mitsubishi A6M Zero



Douglas SBD-5 Dauntless



Powered Sailplane - Dominic Amato



Junkers Ju 87 Stuka



Republic P-47 Thunderbolt



North American Rockwell OV-10 Bronco



North American P-51D Mustang



Rutan Model 61 Long-EZ



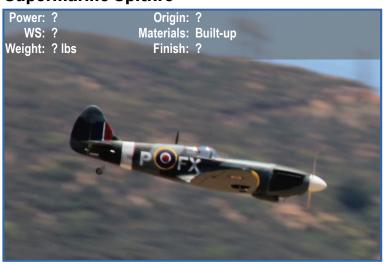
Warner Aerocraft Spacewalker



Vought F4U Corsair



Supermarine Spitfire



Sopwith Pup



Van's Aircraft RV-4



North American P-51D Mustang



Pitts "The Beast"



Model - Pilot



North American Rockwell OV-10 Bronco



North American P-51D Mustang



Bede BD-5 Micro



DOCUMENTATION: AVRO 504K

The Avro 504k is one of the greatest training aircraft ever built. It was used to equip training units first in the Royal Flying Corps and later the Royal Air Force.

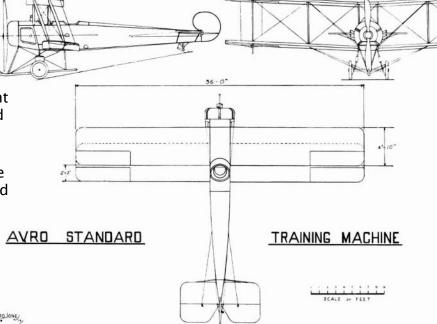
In July 1913, the British A.V. Roe (Avro) Co. tested its first model 504 aircraft, and numerous variants followed. The Avro 504 briefly saw combat in 1914-1915, but was quickly identified as obsolete and relegated to training duty. As a trainer, it gained fame for its simple, sturdy construction and superior handling—characteristics which made the Avro 504 one of the most impressive and widely produced training aircraft of WWI.

After America entered WWI, it took many months to build the training facilities needed by the US Army Air Service. Meanwhile, many American student pilots went overseas for flight training. Those sent to Great Britain learned on the Avro 504K trainer before advancing to combat aircraft. The Air Service eventually established its main training center at Issoudun, France. In July, 1918, the American Expeditionary Force (AEF) commanders ordered 52 Avro 504K aircraft for teaching aerobatics at Issoudun. After WWI, the U.S. Army brought a few Avro 504K aircraft back to the U.S., and they remained in training service for several years.

Nearly 10,000 Avro 504Ks were built before production ceased. The airplane was exported from the U.K. to over 20 countries from Argentina to Japan to Russia. At the end of WWI, the type continued in service as the standard trainer of the newly formed RAF, until the late 1920s. The last UK-built Avro 504Ks were delivered in February 1927.

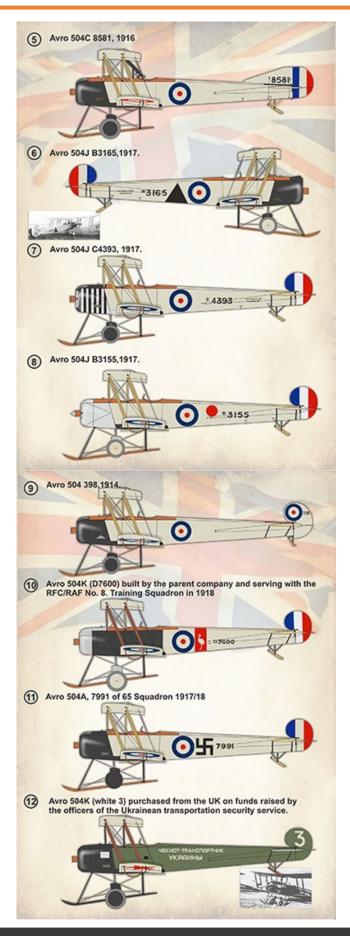
Let the Editor know if you'd like more details

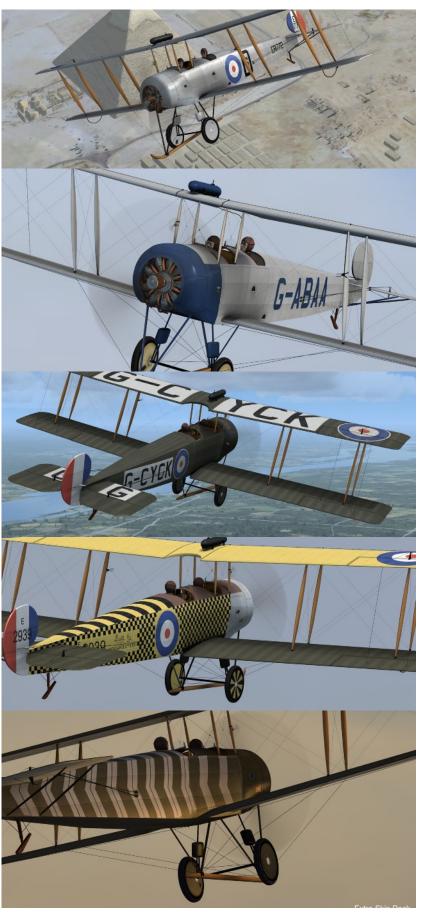






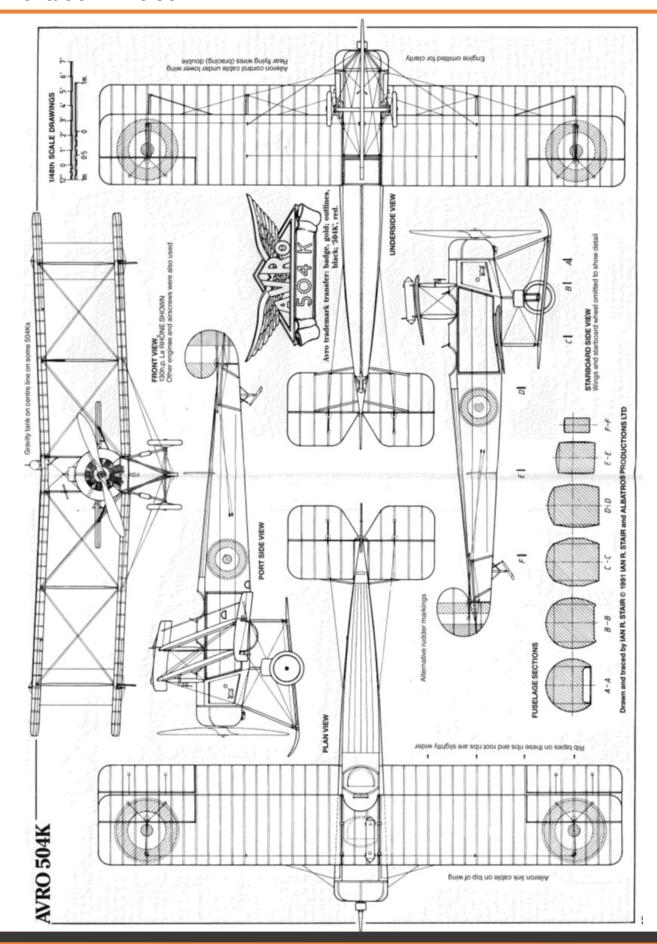
Documentation: Avro 504K



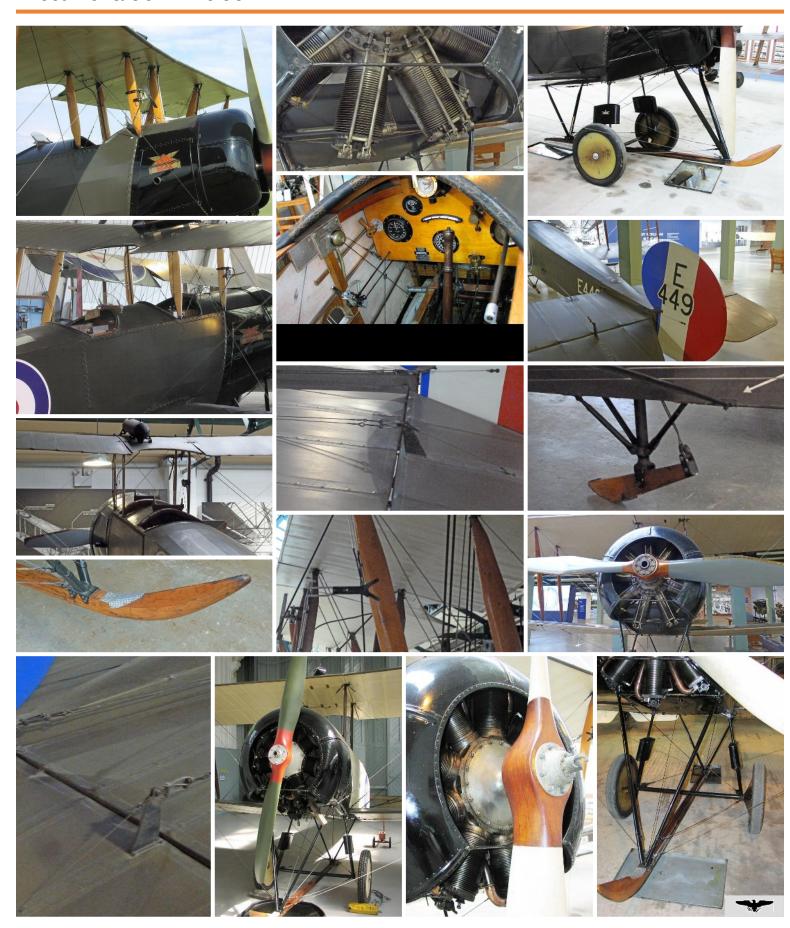


Scale Dimension | October 2023

Documentation: Avro 504K



Documentation: Avro 504K



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.)

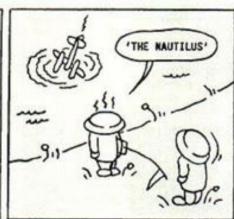
Date	Host & Location	Event & Summary
Oct 11-15	Arizona Model Aviators Superstition Airpark, Mesa CA	2023 US Scale Masters Association Championships USSMA 42nd National Championships at Superstition Airpark in Mesa, AZ is model aviation's premier scale R/C contest. Find us on Facebook for more information.
Oct 12-15, 2023	Tri-Valley RC Modelers Santa Maria, CA	10th Annual Central Coast Giant Scale Fly-In Landing fee \$50 for the full event or \$30/day. Includes 2.5+ days of flying on a giant runway & lunch on Saturday; 3 Nights dry camping parked on asphalt only \$100; AMA membership required; Epic pilot's raffle on Saturday; World famous Santa Maria style BBQ Saturday night; Indoor bathrooms & shower available on site; Lodging, restaurants & grocery nearby; Turbines, 3D & Night flying approved!
Oct 14, 2023	RC Flyers Unlimited Oakdale, CA	RCFU Giant Scale Fly-In Come join the RCFU Giant Scale Fly-In. All IMMA legal scale aircraft are welcomed, except turbines due to the site dry field conditions. Landing fees \$25 including BBQ hamburger/hot dog lunch. Dry RV Camping on field fees under 64 yrs \$30 over 65 yrs \$15.
Nov 25-26, 2023	Tucson Radio Control C lub Tucson, AZ	Tucson Winter Scale ClassicTucson Winter Scale Classic Scale Fly-in & Model Swap Meet. \$40 Landing Fee. Must have AMA membership. Camping but no hook-ups. Registration 8:00am. Flying 9:00am-4:00pm both days.

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.









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Hosted by





2022 Champion - Brad Osborne

ARIZONA MODEL AVIATORS

At Superstition Airpark

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For Contest Info Contact CD - TIM DICKEY tdickey2@icloud.com ... 1 (480) 540-7553

USSMA National Chairman - CURTIS KITTERINGHAM cak11@cox.net ... 1 (760) 807-5519









Join us for the 11th Annual



Tri-Valley RC Modelers

Giant Scale Fly-In

October 12th - 15th 2023

New Cuyama Airport - 3380' x 60' Runway!

The skinny:

- Landing Fee: Only \$50 for the full event (or \$30/day). Includes: 2-1/2+ days of flying on a giant runway & lunch on Saturday;
- 3 Nights Dry Camping only \$100, parked on asphalt;
- Proof of current AMA required;
- · Epic Pilot's Raffle on Saturday.

More skinny:

- World Famous Santa Maria Style BBQ dinner on Saturday night;
- Indoor bathrooms & shower available on site;
- Lodging, restaurants, & grocery stores nearby;
- Turbine jets, 3D, & Night flying approved!

Please call Chuck Barnes at (805)886-7921 or email him at CDBarnes10@comcast.net to register for this event.



Ronald McDonald House' Southern Arizona SCALE FLY-IN & MODEL SWAP MEET

November 25th-26th 2023

Spectators are welcome!

Sponsored by the Tucson Radio Control Club (TRCC)

Donation to benefit local charity







A big thank you to this years fine sponsors:



Event Director: Steve Clark

520-603-1875

havingrunin_rc@yahoo.com



\$40 Landing Fee for as many Planes as you can Bring! Any Size is OK but no profiles please.

Sanitary Facilities,

Camping On-Site (no hook-ups) Food Available

Registration:

8:00 AM both days

9:00 AM to 4:00 PM

Saturday and Sunday

For more information visit: trccclub.org

Field address: 10801 E Valencia Rd Tucson, AZ 85747

AMA Sanction #15398

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!



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* secion 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:

- 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 amail. 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



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.

EW RENEWAL Recommended by DATE
ame Spouse
ddress City
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ome Phone WorkExt Mobile
MA#FAAUSSMAFCC/HamEAA
MODELING INFORMATION
∕ears in R/C Modeling Level: New ☐ Intermediate ☐ Expert ☐ Need Help ☐
nterest 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
low 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
our Ideas
Vould 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.