



SCALE DIMENSION

OFFICIAL NEWSLETTER OF THE SCALE SQUADRON OF SOUTHERN CALIFORNIA

AMA CHARTER 1520 – EST 1977

JUNE 2020

CALIFORNIA RE-OPENING

Which California counties are reopening? The Governor said that the number would be clearer in the coming days. Each county will have to file documentation showing that it qualifies for a variance from the statewide order, including instituting enough testing for communities and proving that local hospital capacity can accommodate a surge of 35 percent as a result of new Covid-19 cases.



**PROUD SUPPORTERS & FOUNDERS OF
THE U.S. SCALE MASTERS
CHAMPIONSHIPS**



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2020 BOARD OF DIRECTORS

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Sam Wright
sam-w@cox.net

EXECUTIVE OFFICER

Pano Coromelas
pcoromelas@gmail.com

PAST COMMANDER

Mike Greenshields
mikegreenshields@gmail.com

TREASURER

Tim Cardin
tim.cardin@cardenwest.com

SECRETARY

Ed Woodson
seulberger@sbcglobal.net

BOARD MEMBERS

Larry Wolfe
copsmom98@aol.com
Gordon Truax
gltruax@att.net

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OCMA REPRESENTATIVE

Ed Woodson

NEWSLETTER EDITOR

Pano Coromelas

P.O. Box 8074

Fountain Valley, California 92728

EMAIL: Commander@ScaleSquadron.com



COMMANDER'S VIEW



Sam Wright

Commander

Make Model Aviation Great Again

June is upon us and of course our great event Warbirds and Classics Event was canceled due to the social distancing requirements. Additionally, our meeting room at Green River remains closed for the same reason.

We most likely, according to Green River, will not have access in July either, so plenty of time to be building something. If your sitting on your hands during this situation, shame on you, as this is a great way to stimulate your mind, and hobby and fill those idle hours, especially our retired members.

Many RC events have been canceled and our great Giant Scale Event over the Memorial Day weekend at Reedy Municipal Airport south of Fresno was canceled as well. The promoters insisted it would hold and up to the last minute the event was canceled. This is right

after we bought a 35' RV to have for our event and the Reedy event. What is that saying, all dressed up and nowhere to go! I do plan to attend the Vegas Warbird Event, Warbirds over the Rockies and the One Eighth Air Force Events.

The unfortunate part with events canceling is re-scheduling the event. I am sure this is a wrestling match for the AMA Sanction Coordinators with a lot of events almost on top of each other. October as an example for me, is Best in the West on the regular date and Top Gun moved to the end of October.

Pano is trying to keep the list of events updated so if you know of one, let him know. Plus he is always looking for material for the newsletter including your projects in any phase of the project.

I am hopeful as I am sure most of you are that once this C19 situation calms down, we will get back to our normal schedules. Flying is still available at both the PVMAC Field in Chino, and OCMA. From the reports, there

is no waiting and plenty of time for everyone to fly.

I am sure you have a partially built airplane project or one you always wanted to start in your garage or shop. I know once you sideline a project, out of sight out of mind comes into play and as you age it becomes easier to just ignore it. I find that looking at a project again and getting back to work on it revitalizes me and gets me back on track. It is possible this will do the same for you and at least worth a try. Sometimes it takes some nudging from a fellow flyer and maybe you need help too. For help you have a lot of people in the club that will gladly help you get started or to a point where you want to finish the project including the maiden flight.

Until next month plan to enjoy our great hobby and build something along with staying healthy.

Sam Wright, Commander

sam-w@cox.net

EDITORS NOTE:

Got some great response from the email Mike sent out!! I got Show and Tell and What you guys are working on! Thank you all for sending me your items this month.

Hope you all enjoy!



Pano Coromelas, Editor



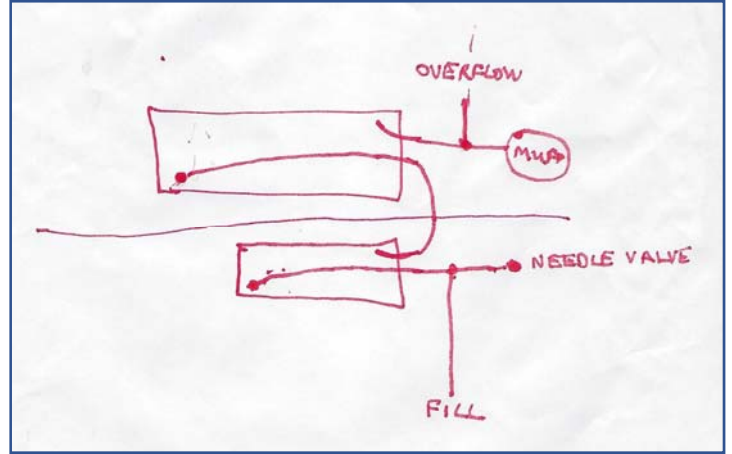
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WHAT OUR MEMBERS ARE BUILDING

This plane is a Great Planes Ryan STA-M ARF that Ron Grater is working on. It has an 82" Wingspan, and installed an OS-91 4-Stroke engine with 2 gas tanks, Futaba receiver and servos, and has the shock absorber landing gear. Installed a EDR onboard glow driver since the 4 stroke is mounted upside down. So far, the engine runs great.



Waiting for me to re-install the gas tanks



The tank tubing design for both tanks inline



On the bench



Charging jack for the radio, onboard glow. Radio on/off switch. Red LED to show when glow is active



Eventually, I want to add scale details; like the wing and stab cables, pilot goggles, laminated wood prop



with partial metal edges, cockpit opening padding, exhaust, and other things to look like the full-scale version

WHAT OUR MEMBERS ARE BUILDING

I got more updates from Rob Hahn's Fan project for his Freewing A-4 Skyhawk foamy



Made-to-fit, one-off, sacrificial saddle tank molds for Skyhawk. Ready to cover nearer EPS tank with black Ultracote. Will use two layers of 3.6 oz fiberglass and a little CF for layup.



That was difficult! Not to mention a comedy of errors. It will be a miracle if it works. Let's see.



For giggles I added a little yellow dye to the resin. I could and maybe should have used more than two layers of fiberglass. These don't weigh anything but they leak like a sieve.



After scuffing and adding another layer of glass, the tanks are air tight. The resin was thickened with Aerosil and slathered into the cloth. The tanks each weigh 18% less than an 8oz Sullivan tank.



The intake is ready for paint and assembly. The oval shaped duct at the bottom will transmit low pressure forward to operate the NACA inlet ramps.



This is an eps and balsa thrust tube mold In the works. The tuned pipe is narrower than the root of the dorsal fin and will be mounted partially in the dorsal fin. The pipe will still have ventilation while leaving the thrust tube mostly unobstructed.

WHAT OUR MEMBERS ARE BUILDING CONT.



Tube Molds



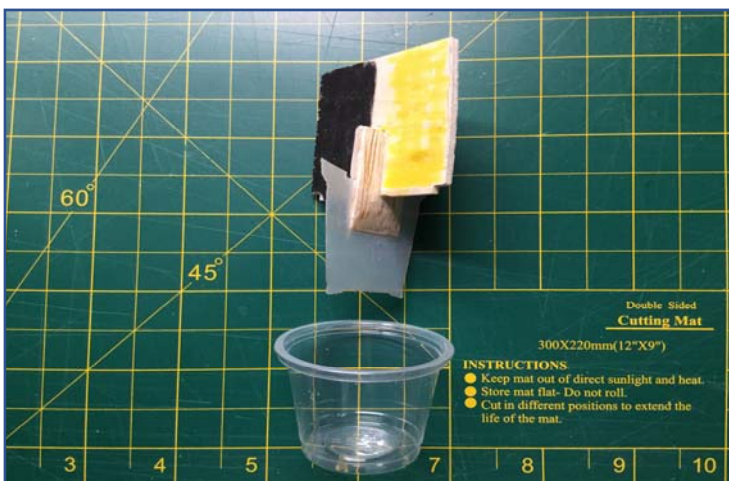
Tube Molds



The mold was finished in black Ultracote. The first part turned out okay and is here in orange. It is a little heavy at 2oz.. If nothing else, at least it is colorful.



There will be a cuff in between the fan and this duct. The cuff will be allowed to vibrate with the fan unit.



Because the two parts of Z-poxy finishing resin are of different viscosity and weight, the resin always slides under the hardener making it difficult to tell if you have equal parts of both in your mixing cup.



I made this handy little divider to from milk bottle plastic and scrap. It fits in a 1oz mixing cup and keeps the two parts separate for a good visual.

WHAT OUR MEMBERS ARE BUILDING

Another member update from Joe Trama. Joe has been working on a Charlie Kellogg plans TBM Avenger. He is really trying to detail this this to the max, and hopefully have it ready for next year's Warbirds Classic.



Bombay doors we're built up with balsa and ply and 1/4 spruce, and then I placed Monocote over it, waxed the Monocote with carnauba wax.



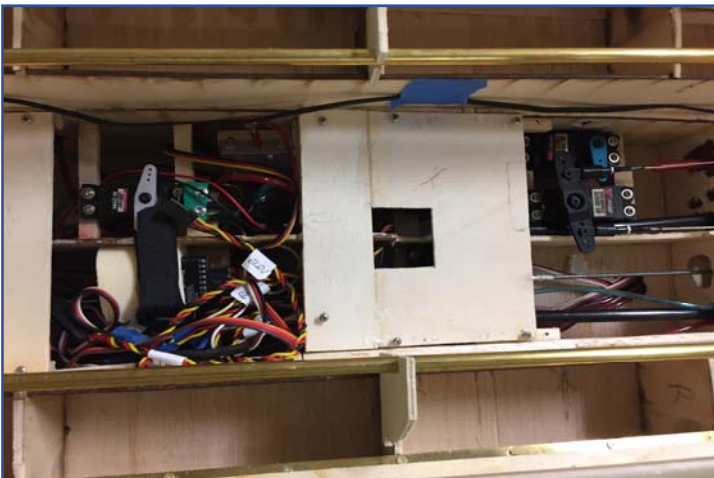
Then placed it 3 layers of 10oz fiberglass cloth and resin to make it durable, you can see the final product.



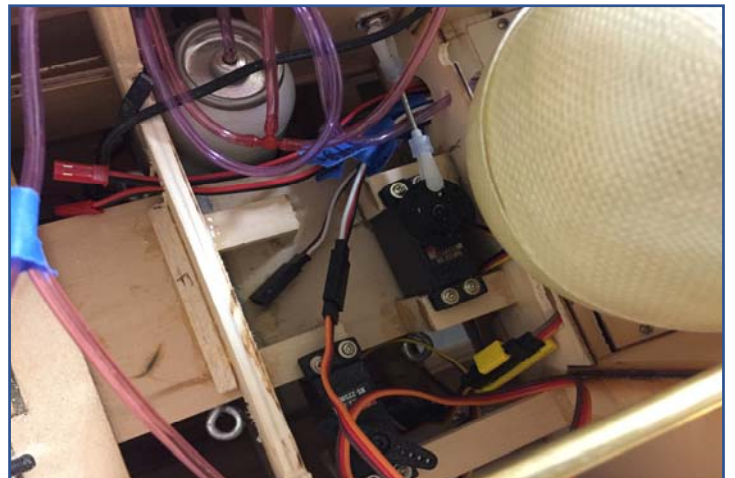
This is a 30-caliber machine gun that will be installed in the back belly of the fuselage. I believe some TBMs had it and some didn't.



Bombay are in 4 pieces 2 on each side fasten to together with piano hinges and open and close with air cylinders.



Most of the servos are installed in the underneath mid-section of the wing, basically that is the only place they will go. This plane will have a total of 13 servos.



The two servos you see one is for the Bombay doors and the other one is for the torpedo release.

WHAT OUR MEMBERS ARE BUILDING

This plane is an ICEPOINT Pattern plane that Dave Coe is repairing. 78" Wingspan, with an OS-120 4-Stroke engine. Dave has two of these and one had the nose torn off in a crash due to pilot error. Although this is not a scale aircraft, he is using a great old school technique for a new front end.



Before the start of repairs



Using the good plane as a mold reference. Cover with plastic wrap



Use Plaster of Paris for mold strength. Make a two-part cast.



Paint the inside of mold with enamel. Wax with Turtle Wax on top of enamel for release agent



Use polyester resin and two layers of glass cloth. Sand after drying to allow for adhesion of third layer of fiberglass cloth



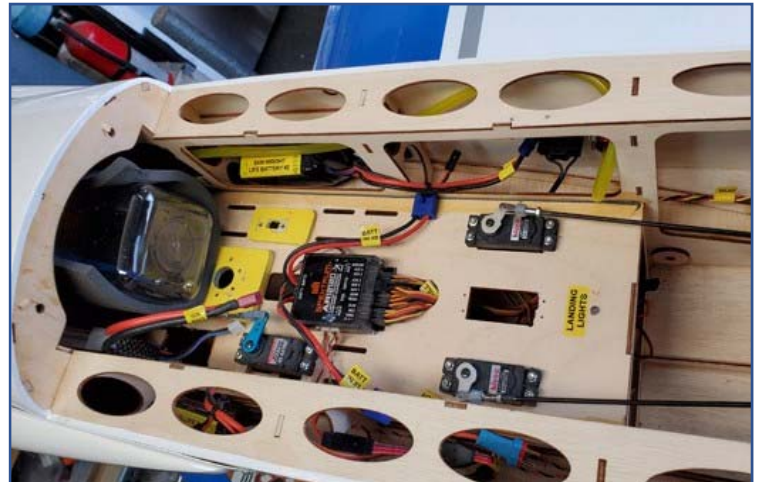
Sand to clean polyester resin to allow for epoxy glue adhesion when attaching to damaged plane

SHOW AND TELL VIRTUAL REALITY

Show & Tell is for our members to show off their scale aircraft project in any stage from plans to being framed up to a completed model. Scale ARFs or full-bore scale models are welcome.



Sam with a Hangar 9 RV4 85" Wingspan. 73" Long Power is a RCGF Stinger 40 gas twin



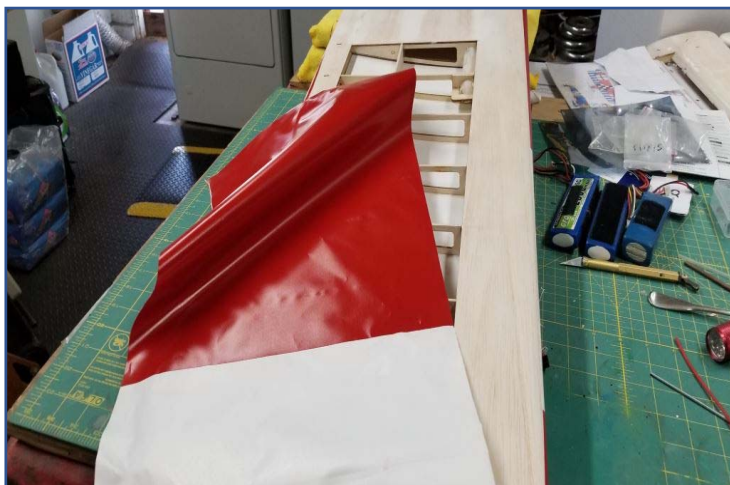
The roomy inside with plenty of room to get at servos and linkages, plus batteries store on the side panels.



Tim Carden's Hangar 9 Fokker DVII. Peeled and recovered with Oratex. Painted with Poly Tone (Stitts) and apparently there has been a change in the formula for Oratex.



When painted with Poly Tone, the paint attacks the adhesive and kills its stickability. Sitting in the sun caused the covering to pull away at every seam and lose all tension.



Reattaching is fruitless, the moment the covering is hot in the sun it slides and loses tension.



Wings have now been peeled again and will be recovered with Stitts.

SHOW AND TELL VIRTUAL REALITY

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In the meantime, Tim put a DeeForce 1/3 Pitts together. It's great puzzle!



Along with no pilot, the ARF comes with no instructions either. Just display pictures online.



Ed McCormick starting some new construction with a BUSA 1/4 SE-5 G38 for power



Ed just trying to keep them flying with doing maintenance and repairs in this picture



Here is Panos' Pilot Pitts S-2A. Marion Cole colors. I won 2nd Place at the AMA show 2018

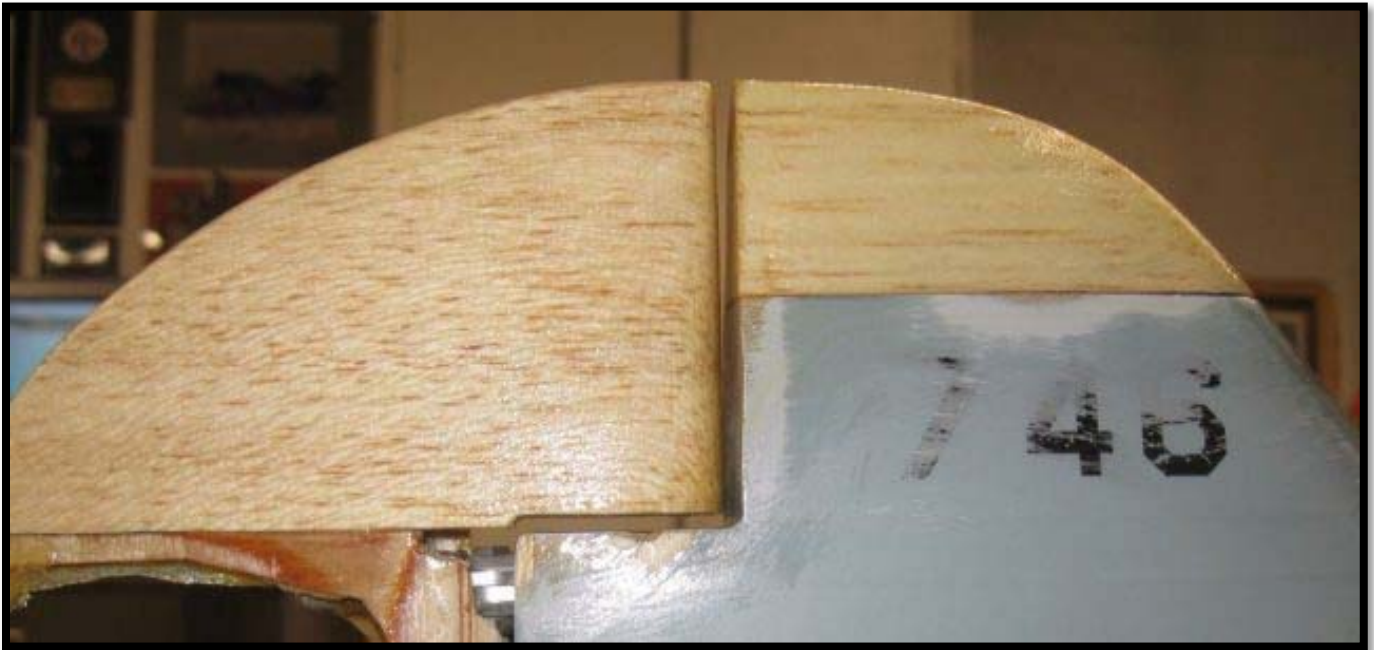


This is a CMP Mustang 65" wingspan EVO 15cc Electric retracts

TIPS FROM THE SHOP

RC WARBIRD TAIL REPAIRS

warbird was a real shame. The owner was saddened of course, and didn't know what he



I'd like to present this article as one more example of how doing repairs to your favorite warbird can be done if you take it one step at a time, and "eat the elephant in bites" rather than fretting over the entire sad picture.

I will also say it was a privilege to work on such a professionally built and finished giant scale RC warbird. I have not met the builder, but kudos to him for such a monumental building task! I am envious of his skills and attention to details.

A fellow RC club member bought a beautiful FW-190A from Vailly Aviation plans with 113 inch span that was extremely well built and ready to fly. At Warbirds Over Texas, 2014, he took Best WW II Warbird honors with the Butcher Bird! He flew it very well a number of times off pavement, but flying it on our home grass field, on landing, it dug-in on a soft area and flipped over. Ugggghh! Well, these things happen, but to happen with this absolutely fine

was going to do about the damage. I told him if he'd order the plans I would tackle the repairs for him. He was pleased to hear that offer. Took a few months to get the plane over to my shop, but he delivered it with the plans and parts less the engine which greatly reduced the weight of the model. The most obvious damage was to the vertical tail and rudder tops which had broken off. Also, the left wing outer panel aluminum spar (3 piece wing) and left main retract were bent when the plane went over during the flip. I told him I'd do the repairs without ever having seen the model (wasn't there for the mishap) and was actually relieved that the damage wasn't as bad as I had imagined. Had I seen the plane first, I could have saved him the cost of buying a set of plans as I really didn't need them.

TIPS FROM THE SHOP CONT.



Close up of the rudder/stab damage. Much less damage than I had expected.

To start off the repairs, I tackled the damage to the rudder and stab as that looked like the easiest job. As much as I hated to peel off the rudder covering with the German kill marks, it had to come off to take a look-see at the damage underneath. Other than the top of the rudder being gone, it looked pretty healthy under there. I didn't do the same investigation to the stab as it was obviously solid, but just took the 80 grit sanding bar and evened it up as much as possible to accept the new balsa top. Same for the rudder top. The new balsa tops were cut to shape on the bandsaw and attached with CA. Once secured, they were sanded to the contours of the stab and rudder with blue painter's tape applied to protect the model as much as possible. But, a few scuff marks always seem to happen. Oh well, going to be repainted anyway. I bowed out of doing any paint repairs. ha.



Bare rudder. Well built. Note the hinges – massive!



Rudder and stab cleaned up to accept new balsa tops.

TIPS FROM THE SHOP CONT.



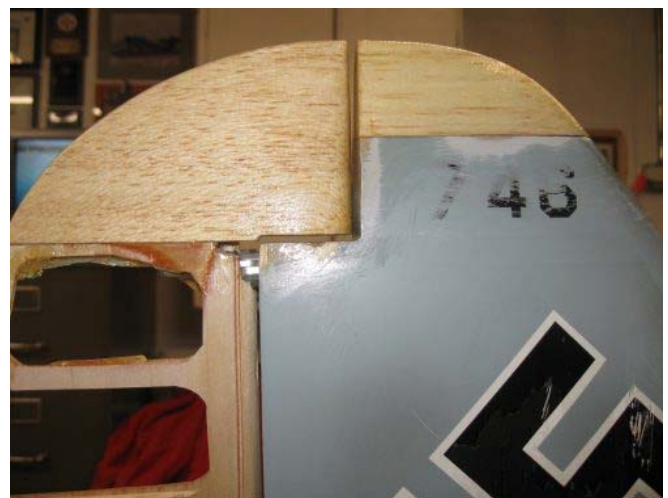
Stab gets new balsa top. CA works fine here as it's balsa to balsa and will be glassed for added strength.



Balsa repairs sanded to shape. Be careful to not oversand the soft balsa! With an 80 Grit sanding block, you can get carried away quickly. Note center-of-rudder reference line, marked in ink, to keep sanding even.



Blue tape over the rudder to keep sanding marks off those areas while shaping the rudder top. Also blue tape to keep rudder perfectly inline with stab while sanding.



Balsa repairs primed with Z-Poxy Finishing Resin to stiffen up the balsa before being glassed. Sand lightly before adding glass cloth.

TIPS FROM THE SHOP CONT.

Stab and rudder tops glassed. Rudder covered with Yellow Solar Tex. Rudder/stab all done and ready for paint. Also note that the glass cloth overlaps the balsa onto the vertical stabilizer for strength. Rudder pull-pull cables hooked up and ready to go. I am quite pleased on how well this repaired area looks! Solar Tex is my favorite iron-on covering material.



No shots of the covering process, but suffice to say the rudder recovering turned out nice using some yellow Solar Tex I had on hand. It needs to be primed and painted, but could be flown like she sits. The owner still has not flown it again due to our field being soft in places. We had some fill dirt added to level-out portions of the field a couple of months ago to better drain the water, so, maybe this Fall he will bring her out and set her free to blast the skies once more. The other repairs will be covered in a future repair article.

BY LANE CRABTREE

MONTHLY MEETING NIGHT

Monday

June 8, 2020

7:00pm

JUNE MEETING



As we continue to monitor the rapidly evolving situation around the coronavirus (COVID-19), our first thought is for the safety and well-being of our members impacted by these difficult circumstances. In these unprecedented times, it is important that we come together to support all those impacted.

EVENT CALENDAR

MARK YOUR CALENDARS

**MORE EVENTS TO VISIT OR PARTICIPATE IN
COMING UP!**

SEPTEMBER EVENTS

September 26, 2020 - Planes of Fame “Vintage Fest”

<https://planesoffame.org/events/vintagefest-1>

OCTOBER EVENTS

October 28-November 1st, 2020 – Top Gun

<https://www.franktiano.com/top-gun>

**WAITING TO SEE WHAT EVENTS ARE GOING TO
BE RESCHEDULED.**

I WILL KEEP EVERYONE POSTED.



PLANES OF FAME
AIR MUSEUM

JOIN US ON SEPTEMBER 26, 2020 AT THE 1ST ANNUAL

VintageFest

Air Display - Hangar Dance - WWII Era Celebration

Celebrating the 75th anniversary of the end of WWII

TICKETS
ON SALE
JULY 15

HISTORIC WWII
WARBIRD FLY-
OVERS BY THE
PLANES OF FAME

VINTAGE SHOPS,
RE-ENACTORS,
MILITARY VEHICLES,
CLASSIC CARS

LIVE MUSIC,
DANCING,
VINTAGE DRESS,
BEAUTY SALON

BEER GARDEN,
FOOD AND DRINK,
FAMILY FUN,
JR. AVIATORS DAY

PLUS: 1940'S DANCE FEATURING TIM GILL ALL STARS BAND & THE SATIN DOLLZ!



THERE CAN BE ONLY ONE.



NEW FOR 2020!
EDF Black Ducted Fan Class, sponsored by



~~April 29 - May 3rd~~
NEW DATE
Oct. 28 - Nov. 1st
LAKELAND, FLORIDA



- Non-stop R/C Flying at its Best!
- Huge Hobby Vendor Area
- Major Team Demos @ Noon Air Show

- Open Pit Policy
- Meet & Mingle with 130 of the World's greatest pilots



Located at "Paradise Field" on W. Pipkin Rd, @ 4999 Air Show Rd. Lakeland, FL.



Directions, Area Hotels and more at FrankTiano.com or 863.607.6611.
For travel and local info contact Cindy Berkley at Cindy@Universal-Travel.com or 954.587.8490.



SCALE SQUADRON OF SOUTHERN CALIFORNIA

Advancing and 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 the Scale Squadron.

Our members have diversified interests in all facets of aviation history, from the first aircraft to fly at Kitty Hawk to the modern-day jet. Advancements in technology have provided us with ready-to fly kits, on-board cameras, in-flight telemetry, multi-cylinder engines as well as high powered miniature jet turbines that burn real jet fuel. 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 outperform that of its 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 every member makes a scale masterpiece. That's OK too! Whatever pleases you is what counts. Whether you are kit-bashing, volunteering at charity aviation events, or making molds from scratch for Scale Masters or AMA National Championship 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 2nd Monday of each month at the Green Valley Adult Clubhouse, 17215 Los Jardines West (just north of Slater) in Fountain Valley, CA. The meetings start at 7PM and last about 2 hours.

Our meetings throughout the year include the usual club business as well as Member Show & Tell, Modeling How-To's, 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. Like-minded visitors are always welcome. All members and visitors alike are encouraged to bring their latest scale models and projects!

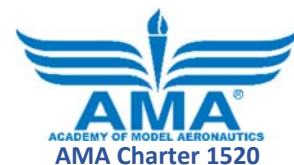


SCALE SQUADRON OF SOUTHERN CALIFORNIA

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.

ABOUT THE SCALE SQUADRON

SCALE SQUADRON OF SOUTHERN CALIFORNIA

Officially AMA
Chartered on
April 7th, 1977

1977

WHERE IT ALL BEGAN

Scale Modeling is the accurate recreation of aircraft in aviation, from the early biplanes to the latest jets of the 21st century. Whether it's built from scratch, a kit or an ARF, scale modeling strives to recreate the airplane as historically accurate as possible. Paint schemes, rivets, windshield glass, and even pilots are faithfully painted and built to exacting specifications. The end result is a flying recreation of the original full-size airplane.

Our members all have one common goal - to share their knowledge of aviation, aviation history, and scale modeling.

Our monthly meetings are open to everyone, and often feature "how to" seminars on building and flying model aircraft.

Each year the Scale Squadron hosts and participates in numerous events, with the overall goal of bringing together modeling

enthusiasts from all over the world. Events our members historically and perpetually attend are:

- Top Gun
- U.S. Scale Masters
- Warbirds Over the Rockies
- Arizona Electric Festival
- Best in The West Jet Rally
- One Eighth Air Force Fly-in
- Battle of the Builders

The Scale Squadron also hosts their own annual event known as The Scale Squadron Warbirds and Classics. This year will be the 9th year running of the Squadron event.

The Scale Squadron dates back to the early 70's. Harris Lee, Bert Baker and Bob Olson were the original founders of the Scale Squadron and members of the Orange Coast RIC Club. Their interest in scale modeling brought them together regularly at Lee's home. The word soon got out, and their numbers quickly grew. Scale modeling became the hottest new interest within the R/C community.

The first official scale modeling club was formed in 1973 with events held at Mile Square Park.

Scale modeling was in its infancy yet immensely popular as attested to by the large participation at each of their events. Harris Lee devised a plan for sanctioning a series of local qualifiers around the country and then having a fly-off to determine the national champion. Out of this idea the U.S. Scale Masters was started and is the premier scale competition in the country today. Pat Potaga, of Scale R/C. Modeler Magazine, helped to put this program on the map. His articles and front-page color photos helped fuel the fire of scale modeling. The modeling world owes these visionaries a debt of gratitude. Thank you Bert Baker, Bob Olson, Jerry Ortega with special thanks to Harris Lee.