

THE SCALE SQUADRON  
OF  
SOUTHERN CALIFORNIA



Founders of the  
US Scale Masters Championships

# SCALE DIMENSION

Official Newsletter of the Scale Squadron of Southern California



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Founders & Proud Supporters of  
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## The Scale Squadron of Southern California 2022 Board of Directors

### Commander

Mike Greenshields  
mikegreenshields@gmail.com

### Executive Officer

Eric Puchalski  
roadkill1954@gmail.com

### Treasurer

Tim Cardin  
Tim.Cardin@CardinWest.Com

### Secretary

Joni Whitsitt  
whitsittjo@gmail.com

### Board Members at Large

Larry Wolfe  
copsmom98@aol.com

Gordon Truax  
gltruax@att.net

### Webmaster

Mike Greenshields  
mikegreenshields@gmail.com

### OCMA Representative

Mike Greenshields  
mikegreenshields@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>

## On the Cover

1. Brian Young bringing home his Grumman F8F Bearcat at the end of another crowd-pleasing flight.
2. Jim Richards doing the kind of thing you'd expect from a Pitts S-12 called "The Beast."
3. Frank Baker's General Dynamics F-16 Fighting Falcon EDF taxiing back after another successful sortie.



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**Mike Greenshields**  
Commander

Hi Squadron!

November is an eventful month.

First: **Veterans Day** just passed. Thank you to all who served. So many of our members are veterans. Know you are valued and appreciated and respected. It is an honor.

Next up: **Club board nominations and voting.** At our meeting Monday we will nominate and vote in a new board. We automatically nominate all no-shows (just kidding). Please attend and vote in your 2023 board.

Then, there's: **Builders Wing.** I am working on my projects! This has evolved a little from my original plan but I am making progress on my little Partenavia, I have finished my little Cherokee and have that about ready to fly, and progress is now being made on my JHH Panther. Along with all that I have a Flite Streak ready to cover, the House of Balsa Stik partially framed, and a small sport glider called a Sugarglider all framed and almost ready for covering and final assembly. Working on one while the others dry. It reminds me of how therapeutic building is!! I hope you are building and enjoying the time.

Don't forget next month is busy, too, with both **Toys for Tots at OCMA** (flyocma.com) and our Christmas party (2nd Monday)! Remember to RSVP

for the party with **Joni Whitsitt!** (See **Page 5** for details.)

And finally: **Happy Thanksgiving!** I am thankful for so many things, including this club and all of you. I hope you have a great one!

Happy Thanksgiving, see you Monday or at all these events!!

*Mike Greenshields, Commander*  
[Commander@ScaleSquadron.com](mailto:Commander@ScaleSquadron.com)



# EDITOR'S NOTES

So, after a year and a half or so of editing this newsletter, I'm still about as excited as anyone can be about sharing information with you all about this incredible hobby of ours. The past couple months have found me engaged in activities that have kept me away from the field but that doesn't mean I haven't been thinking of you all and our mutual interests. I'm blessed with a wife who understands that aviation interests might be a little boring (from her perspective) but they keep me off the streets and out of those dingy pool halls. I keep reminding her that no matter what, at least she knows where I am: either in the garage or out at the field.

## 2022 Squadron Christmas Party

The annual **Squadron Christmas Party** is coming up on **Monday, December 12, 2022** at the **Green Valley Adult Clubhouse** (our regular meeting place). This is an opportunity for all Squadron members to get together one last time in 2022 and talk about the ups and downs of this past year and share our plans for 2023. Festivities begin at 6:00pm with a general mixer (lubricated by an open bar). Dinner is served at 7:00pm and is catered by **Stonefire Grill**. There will be a few main dishes and some salads and sides—there will be something for everyone. Awards presentations and the raffle will begin around 8:00pm. The raffle is looking great with a number of donations from Squadron members (including a **North American F-82 Twin Mustang** from VQ ARFs donated by **Larry Wolfe** and a bunch of other stuff that you won't want to miss out on.

If you're a new member and haven't been to one of these annual events, you won't want to miss this one.

## Speaking of Museums...

I didn't want to spill the beans last month but when my wife and I were on our recent Oregon and Washington excursion in September, we stopped at not one, but *two* air museums. (My wife's a peach!) Last month I told you about our day at the **Evergreen Aviation & Space Museum**. This month it's the **Tillamook Air Museum** in Tillamook, Oregon. Tillamook and Evergreen have completely different approaches to the whole "museum" thing. If you don't remember my report on Evergreen from last month then you might want to look it up. Then compare that to



**Eric Puchalski**  
Newsletter Editor

Tillamook (starting on **Page 7**) and see if you agree that they're different, but each in their own way, amazing.

## Member Project Updates

There hasn't been much progress on member projects in October and November (at least not that I've heard) but I will say that **Tim Cardin** made a run at flying **Ed Woodson's P-47 Thunderbolt**. The attempt was cut short when a minor part broke and impacted the model in a big way. It looks like we'll have to wait for an update on that but I'm told that Tim has already fixed the problem. Keep your fingers crossed for next month.

## OCMA Safety Notes

Over the past year or so, I've been highlighting some of the rules governing our use of **OCMA Field**. In Orange County the field is a gift that we can't afford to take for granted. I've asked Squadron member and OCMA Safety Officer, **Dave Kadonoff**, to contribute something each month. I'm not sure Dave will have something every month but check out **Page 6** for his inaugural column. I know you'll find something useful there this month and in the future.

That's about it for this month. I hope you enjoy the newsletter. Let me know if you have any suggestions to make it better.

[roadkill1954@gmail.com](mailto:roadkill1954@gmail.com)



# It's Time for the 2022 Scale Squadron Annual **Christmas Dinner!**

**Date:** Monday, December 12, 2022  
**Location:** Green Valley Adult Clubhouse (our regular meeting place)  
6:00pm – Mixer  
7:00pm – Dinner (catered by Stonefire Grill)  
8:00pm – Awards Presentation & Raffle

2022 has been a tough year for the Squadron in a number of ways, but there were a lot of high points as well. Come join us for some Food, Fun & Frolic while we celebrate the past year & make plans for 2023.

Remember that the Christmas Party is free to all paid Squadron members and one guest. There will be a hosted bar with the usual assortment of soft drinks and adult beverages.

We'd like to know how many to plan for so please RSVP to **Joni Whitsitt** ([whitsittjo@gmail.com](mailto:whitsittjo@gmail.com), 949-397-4046) or your favorite Board member.



# SAFETY NOTES

by Dave Kadonoff

## Flying In a Safe Environment

As most of us understand, most posted rules are the result of two criteria, to ensure a safe environment, and the reaction to some person doing something that isn't safe, necessitating a rule to be created to address that specific issue. For example, at OCMA, flights down the centerline of the runway are not permitted. They must be beyond the far outside edge of the runway. The reasons are obvious. A plane going out of control too close to the pilot stations could easily cause injuries. If there was a great distance between the runway and the pilot stations, then I imagine that it might be permissible to fly down the centerline and I believe that there are a number of clubs that do permit that. But not OCMA.

But safety for others is only part of the picture. You have to ensure your own safety as well. I have seen countless aircraft out of control, flying at, over and behind the flight line, over the pits and even the parking area. But almost never do I hear the pilot yelling heads up! You have to keep an eye out ALL of the time due to the variety of aircraft we have, and some exceed speeds of 150 MPH. I have seen a number of midair structural failures resulting in the loss of the aircraft with debris shooting over a wide area.

When I bring a plane into the taxiway after a flight, I NEVER stand in front of it. I ALWAYS stand off to the side incase an engine or motor goes into full throttle for any stupid reason. I always use a throttle cut on all of my models.

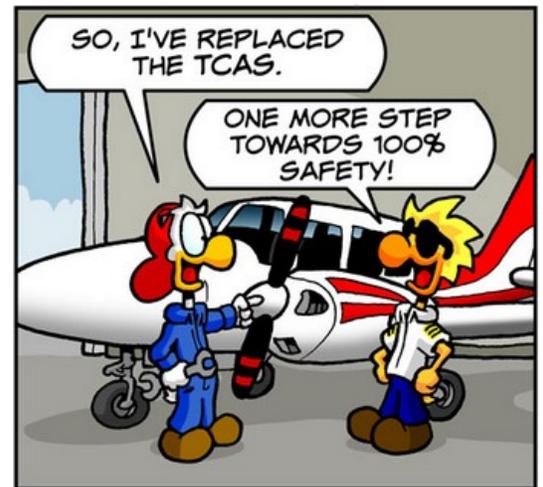
Another thing I see at OCMA that makes me scratch my head is when pilots bring their planes into the right-hand taxiway, and approach their model with their back to the planes coming in from the right, even when other pilots are calling out "landing." They seem to be oblivious to being hit by an incoming aircraft in the back of their head. Maybe they just really trust whoever is flying. I don't. And standing literally past the engine kill lines and talking to people, with their back to the runway just a few feet away, while planes are in the air makes no sense to me.

Stay alert and stay healthy!

*Dave Kadonoff, OCMA Safety Officer*  
Commander@ScaleSquadron.com

## CHICKEN WINGS®

BY MICHAEL AND STEFAN STRASSER



# FIELD TRIP: TILLAMOOK AIR MUSEUM

By Eric Puchalski

So, I didn't want to spoil the surprise but when my wife and I went on our three-week Oregon and Washington RV trailer excursion in September and October, we visited not one, but *two* air museums. (Yes, I'm *totally* blessed with a wife who puts up with this airplane stuff!) Last month (October 2022) I told you about our day at the **Evergreen Aviation & Space Museum**. This month I'll show you around the **Tillamook Air Museum** in Tillamook, OR.

Tillamook and Evergreen couldn't be more different in their collections and the way they present them. Evergreen is much more what you think a "museum" should be: perfectly restored airplanes with extensive information placards, artifacts encased in Plexiglas display cabinets, dozens of docents, perfect lighting, a cafeteria, and other accouterments to help you enjoy your visit with the airplanes on display.

Tillamook, on the other hand, is a little rough and ready with mostly small, privately-owned airplanes that look like they just needed a place to be parked for the day. There are temporary signs in front of airplanes, the smell of kerosene everywhere, oil pans to catch drips, questionable lighting, and an overall feel of someone's small hangar or garage. Staff, on the other hand, couldn't be more proud of their museum and the artifacts they have on display. I loved visiting both museums, but for different reasons.

## How to Get There

To get there: First, go to Tillamook, OR and visit the cheese factory (seriously). Then head south on US-101 for a couple miles until you're just outside of Tillamook proper. At that point, there's literally *no way* you can miss the museum. It's the *gigantic* blimp hangar that says **AIR MUSEUM** in 90-foot high letters on its roof (**Photo 1**). The location is a former US Navy Air Station blimp hangar known as "Hangar B," which happens to be the largest clear-span wooden structure *in the whole freaking world*. (Yes, it's bigger than the LTA hangars at MCAS Tustin.)

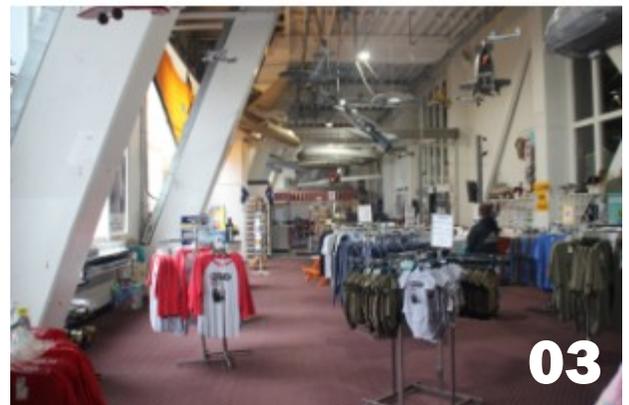
**01:** Driving south on US-101 just outside Tillamook, OR, if you miss the museum then you must be asleep.

**02:** The first thing you see when you drive up (after the hangar) is the Mini Guppy.

**03:** The gift shop is pretty typical but it's about the only place where you'll see any flying model airplanes.

## Museum Origins

In order to appreciate what makes the TAM unique, you need to know a little of the history of the hangar that houses it. Two hangars were originally built in 1942 by the U.S. Navy as a home base for blimps that were used in anti-submarine missions along the Pacific coast. In 1992 one of the hangars was destroyed in a fire. In 1994, the remaining hangar



## Field Trip: Tillamook Air Museum

was repurposed as the Tillamook Air Museum. The hangar is now home to one of the most interesting museums on the West Coast for aircraft, architecture, and history.

### The Collection

The collection brings together a somewhat random assortment of general and military aviation, automobiles and other vehicles. There are also a few other odds and ends including retired train locomotives, cockpit trainers (some functional, some requiring restoration), tractors, engines, and parts. Some of the cars have been restored but many appear to be original. There is a gift shop (**Photo 3**) where you can grab a few of the typical souvenirs and other aviation-related items if you're into that sort of thing.

There are no model airplanes to speak of. You'll find a few hanging in the gift shop but there was no attempt to highlight or explain them.

### The Hangar

The hangar that houses the indoor parts of the collection is *so* big, you can't see the roof when you're standing inside (**Photo 5**). The building itself is 1,072' long and 296' wide, giving it over *seven acres* of floor space. The original two hangars could house six blimps each. The building stands 192' tall. The 12 sliding door panels weigh 27 tons *each* and all are 120' tall.

It was very dark in the main hangar and I asked one of the docents (did I mention that I *love* docents?) if he could open the doors and let a little light in so I could impress my friends in SoCal with photos of some pretty obscure airplanes. He said that unfortunately, the doors don't work anymore. They *can* be opened, but it's pretty much a day-long job to get them open and closed again. They do it occasionally for special events, but they wouldn't do it for me. They've tried to light things up with sodium arclights but it's still pretty dim. The lighting is bad enough that if the displays were out on

**05:** It's hard to grasp the enormous size of the hangar. The teenie little arclights (which aren't really so teenie) provide some light but you'll want to watch your step.

**06:** To make it possible to actually see the collection, a large tent was built inside the hangar. This tent is a couple hundred feet long and provides ample space to see the best parts of the airplane collection.

**07:** Here's how that tent looks from the inside.

**08:** Here's something you don't see every day: the Helium Room houses the equipment that was used to move helium from rail cars into massive storage tanks. From there it would be piped to various locations on the hangar floor where it would be used to fill blimps. When blimps were in for service, helium would be pumped out and put back into storage.



## Field Trip: Tillamook Air Museum

the open floor, it wouldn't be possible to fully appreciate the airplanes in the collection, and it would be virtually impossible to take photos of them. To solve this, they constructed a large, well-lit tent (**Photos 6 & 7**) and moved all the really important stuff into that. Some of the displays that wouldn't fit in the tent are located close to the hangar doors where there's a decent amount of light coming in the windows. But there's still a fair amount of stuff tucked away in dark corners.

### Aircraft

As far as aircraft go, they have some of the old standbys: A-26C Invader, A-4B Skyhawk, F-15 Eagle, and a few more. There are quite a few **homebuilts**: Rutan Model 61 Long E-Z, Star-Lite Warp 1-A, Chris Tena Mini-Coupe, etc. There are also a few **replicas** of old favorites: Tiger Moth DH-82A, Nieuport 11. (These are slightly smaller than full scale.) It was nice to see a number of **things I'd never even heard of**: Bellanca 14-13 Cruisair Senior, Fairchild GK-1, Nord 1101 Noralpha, and others.

The best and shiniest of all the airplanes are the homebuilts. These are clearly well maintained and used regularly. Well, the A-26C and a couple others have been fully restored but they don't look like they get out much.

### Aero Spacelines Mini Guppy

One of the highlights of the museum is the **Aero Spacelines Mini Guppy** that sits right up front of the museum when you pull in to the parking lot (**Photo 9**). I've seen many versions of the Guppy, including the Boeing 747 version currently used by NASA, but this is the first time I was able to climb into one and look around. It's pretty easy to see the demarcation between the original **Boeing Model 377** airframe and the part that was added on. As part of the tour you can walk through the Guppy from the tail section loading ramp to the front cockpit (**Photos 10 & 11**). The cockpit looks like the pilot and crew just left the aircraft—it's complete and ready to go. I was surprised at the relative simplicity of the airplane. Well, it's a four-engine transport so it's complex, but it looks like just about anyone who can fly an airplane would stand a chance of flying this one.

**09:** A centerpiece of the collection is this **Aero Spacelines Mini Guppy**.

**10:** Looking forward from the rear entry of the Guppy. That light at the end of the tunnel is the cockpit.

**11:** A better view of the cockpit of the Guppy. (Those are dummies in the pilots' seats. But aren't they always?) The small table and controls in the lower right of the photo is the load master station.

**12:** As I said, there are a few unusual items on display. This is a **Thompson Model 28 Experimental Airship** done up with some unique livery. I'm not sure what this one is used for (scaring cows, maybe?) but it's certainly an eye catcher.



# Field Trip: Tillamook Air Museum

## B-52 Stratofortress Cockpit

Some years ago, the museum acquired the front of a Boeing B-52 Stratofortress fuselage, including the complete cockpit and engineering stations (**Photo 13**). A multi-year project, staffed by museum volunteers, is under way to restore this to operational condition. (It wouldn't be functional, of course, since there's no airplane behind it.) This makes for a pretty impressive display. Currently you can climb into the space where the flight engineers sat but the pilot seats are off limits. The thing I was most amazed by was the overall size of the airplane compared to the teenie-weenie space where the engineers have to ride—and they don't even get a window! (**Photos 15 & 16**) I can only image what one of those 18-hour missions must have been like, being squeezed into that space with your eyes glued to instruments, lights, and display screens and not even knowing if it's day or night.



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## Cockpit Trainers

The collection holds several cockpit trainers, including an F-4 Phantom II, A-7 Corsair II, C-46 Commando, TH-57 Ranger helicopter and several others. (**Photos 17 - 21**) These are not flight simulators but were intended to help aspiring pilots learn where all the switches and gizmos are located in the cockpit. They are powered so when you flip a switch a light goes on and when you pop a breaker, something goes off. But they're exact replicas of what's in the real deal and it's a lot of fun to look at the panels and think "Gee, I wonder what that button does?" You can walk right up to these and (maybe) climb in, but none of them are currently functional. I say "maybe" because the cockpit space mostly looks like it was designed for someone 40 years younger than me and about 100 lbs lighter. I didn't want to embarrass my wife by having to ask her to get someone to hoist me out with a forklift.



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## Tractors, Trains & Fire Engines

A nice bonus is the collection of tractors, trains, and fire engines. There are about 15 or 20 tractors all in various stages of restoration (**Photo 22**). The tractors and fire engines are housed inside the hangar while all but one of the locomotives are outside. You also can't

**13:** An outside view of the B-52 cockpit section. Restoration of the outside is complete and it looks pretty cool just sitting there..

**14:** The rear bulkhead, and visitor entrance, of the B-52 cockpit section.

**15:** That small corridor leads from the rear bulkhead to the flight engineers' stations. The height of the tunnel is less than six feet, which gave yours truly (at 6'-5") a bit of trouble. Lots of sharp corners and protrusions to get tangled up with.

**16:** Here's one of the two flight engineer stations. The other is directory to the right and it's no less complex and claustrophobic. At least the two people sitting there have each other to talk to.

## Field Trip: Tillamook Air Museum

miss the several railroad locomotives and the rail car boneyard (**Photos 23 - 25**). While these aren't exactly up my interest alley, who doesn't love an old steam engine? I found it fascinating to explore the equipment and imagine what it was like when they were all running.

### World War II Room

Just when I thought I was done and was walking toward the exit, I noticed a sign announcing the **World War II Room**. It's actually a pretty big place but being tucked away in the corner of that massive hangar, I'd managed to completely overlook it. This is a *very* cool collection of dioramas of well-known WWII European battles including the D-Day landings, Operation Market Garden, and others (**Photos 27 & 28**). These were all built by the same person who just happened to love doing WWII dioramas the same way some people love doing HO and N-gauge train layouts.

### Pigeon Management

One interesting aspect to using any large building is that birds, particularly pigeons, like to make their nests up in the rafters. It's usually warmer up there and sheltered from the weather so it makes sense if you're a bird. If you're *not* a bird, the obvious down side is that debris and poop rain down from the rafter residents. As I was walking around the floor of the hangar, I noticed several piles of feathers on the floor at random locations. I asked one of the docents what's up with the feathers. He said the feathers are about all that's left of the pigeons that fall victim to the pigeon control program. It seems the "pigeon control program" consists of several barn owls that also live inside the hangar. We never saw any of the owls but judging by the carnage on the floor, I suspect they're very fat barn owls.

### Engine Room

The Engine Room houses a number of classic internal combustion and jet engines. All are easily accessed and you can get close enough to take dimensions for your next engine detailing project. You'll also find several



**17:** A few of the cockpit trainers lined up and waiting for junior pilots.

**18:** Inside view of the A-4 Skyhawk cockpit trainer.

**19:** I'm not sure which cockpit trainer this is but it's clear that every effort was made to make it as realistic as possible, both inside and out.

**20:** One of my favorite hot rods: an F-4 Phantom II cockpit trainer..

**21:** This is the interior of the cockpit trainer for either the F-8J Crusader or the A-7E Corsair II. I'm not sure which; maybe someone can enlighten me?

# Field Trip: Tillamook Air Museum

examples of propellers ranging from early WWI wood props to complicated variable-pitch units from WWII and Korea.

## All in All...

All in all, Tillamook Air Museum houses a pretty eclectic collection. But it's one of those museums where you feel that, if you could only roll up your sleeves and dig into a few of these airplanes, you could bring them back to life (or at least get some engines running).

I know I'm missing some things in this article but my wife and I were on a bit of a schedule and couldn't spend all day. We spent about two hours at the museum but you should plan on more than that if you want to explore some of the non-aviation artifacts. Would I go again?

Absolutely! This is *my* kind of museum. Would I make it the reason to visit Oregon again? Probably not. But next time I'm in the 'hood, you can bet I'll drop in.

**22:** If it's tractors you want, TAM's got 'em. There is a collection of about 20 (mostly restored) farm tractors of all makes and sizes.

**23:** This locomotive is parked inside the hangar because that's where it used to work. There are tracks built into the floor and this engine was used to bring in rail cars loaded with tanks filled with helium. That helium was pumped from the tanks into huge storage tanks via the Helium Room.

**24:** A small yard engine that was used to shuttle cars around rail yards. That's a pile of trucks in front of it.

**25:** A small steam engine and a Union Pacific Pullman coach.

**26:** Fully restored **1958 Pirsch Fire Truck**. This is just one piece of a nice collection of antique fire fighting equipment.

**27:** The dioramas in the **WWII Room** are astounding on a number of levels. Shown here is one of *dozens* of displays in the room. These are not the Matchbox-size models you're accustomed to seeing in this kind of display. To give you an idea of the scale, the B-17 in the center of this photo has about a 14" wingspan. All of the models, whether aircraft, motor vehicles, armor, artillery, and everything else, is all built to the same scale. This was a tremendous effort!

**28:** Just one of *six aisles* containing displays relating to WWII in Europe. The sheer number of models involved and the time and dedication it required to complete this masterwork is mind boggling.



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# Field Trip: Tillamook Air Museum Museum



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**27 - 30:** Some of the cars and other vehicles included in the collection. Most of the vehicles in the museum have been restored but some are still in original condition.

**31:** In the **Engine Room** you'll find a nice collection of jet and internal combustion engines. These jet engines represent just a small part of the jet collection.

**32:** This cutaway **Allison V-1710** is the engine that was used in all the hot rides of the time, including the **P-51 Mustang**, **P-38 Lightning**, **P-40 Warhawk**, **P-39 Airacobra** and others. The cutaway presentation helps illustrate the complexity of these amazing power plants.

**33:** The **Hispano-Suiza** was the Allison engine of WWI. This engine was unique in that it was designed with a hole running the length of the crankshaft so a gun mounted to the rear of the engine could be fired through the propeller. The Hispano was used in multiple Allied aircraft such as the **Spad S.VII**, **Sopwith Dolphin**, **Boeing AT-3**, and **Nieuport 14**.

**34-35:** One of my favorite airplanes in the museum. The note on the cockpit of this **Douglas A-4 Skyhawk** reads "Aircraft Currently Undergoing Restoration."



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This bad boy looks like he needs a *lot* of restoration. I'm thinking the restoration crew has their work cut out for them but it's great to see all that interest and effort going into one of the sexy "B" models.

**36-37:** There are only a couple helicopters in the collection. This one is a **Bell TH-57C Sea Ranger** and looks like it's ready to go.

## Field Trip: Tillamook Air Museum Museum



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**38:** The **Radioplane OQ-19** drone was an early R/C airplane used by the U.S. Army for target practice.

**39:** I'm not sure of the history of this MiG but it's a beautiful restoration.

**40:** The museum's 7:8 scale **Nieuport 11** replica is a homebuilt from Oregon that was built in 2002 and donated to the TAM in 2010.

**41:** This is another replica, this time of a **De Havilland DH-82A Tiger Moth**. This one was designed by Fisher Aircraft and built in Washington state and was donated to the museum in 2016.

**42:** A very impressive airplane in the collection is the **Douglas A-26C Invader**. This particular aircraft was built in 1945. It was loaned to France where it spent some time in Indonesia before being returned to the USAF. After passing through several owners, it finally made its way to the TAM in 2006.

**43:** The museum's **BAC Jet Provost** has been around since 1959. It was designed as a jet trainer and filled many roles in that area.



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**44:** Flying from the USS JFK, the museum's **LTV A-7E Corsair II** saw a *lot* of action in the First Gulf War. This specific aircraft flew 39 missions over Iraqi territory.

**45:** The museum's **Boeing PT-17 Stearman** was originally built in 1942 and served the Army for many years before being acquired by an airshow performer. It spent some years on the airshow circuit before being sold to another private party who donated it to the TAM in 2022.

## Field Trip: Tillamook Air Museum Museum



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**46:** Bellanca 14-13 Cruisair Senior general aviation airplane built just after WWII. It uses a welded steel, fabric covered fuselage with a built-up wood wing. Nice lines!

**47:** From the Engine Room, a Wright R-1820 Cyclone of the type used to power the B-17 Flying Fortress, SBD Dauntless, FM-2 Wildcat, and others.

**48:** This home-built Rutan Model 61 Long-EZ has been in the collection since 2017. It required about 3,600 hours to build at a cost of around \$28,000.

**49:** The front 40' of a Convair 880 fuselage in TWA livery. This was salvaged from Mojave and still has its original 1974 interior.

**50:** The 3I Sky Arrow is a carbon fiber, two-seat general use airplane that's built in Italy.

**51:** I was attracted to the Nord 1101 Noralpha because of its borderline ugliness. When I found out it was designed by Willy Messerschmitt just before WWII, that explained it.

**52:** This Fairchild GK-1 was built in 1941 for the U.S. Navy for use as a four-seat transport. This particular Fairchild still belongs to the Navy and is on loan to the TAM from the National Museum of Naval Aviation.

**53:** What's not to love about an ERCO Ercoupe 415C. This one was built in 1946 and has been beautifully restored.

**54:** Speaking of ugly... this Kaman HTK-1 Helicopter was produced in 1953 for the U.S. Navy as a trainer for up and coming helicopter pilots. Note the unusual intermeshing rotors. These are counter rotating and there is no tail rotor.



# OCTOBER 2022 SQUADRON MEETING

There was a fair amount of general business to get through but **Commander Mike Greenshields** got through it with his usual efficiency and flair. We talked about the upcoming **Annual Squadron Christmas Party** (see **Page 5**), took nominations for the **2023 Squadron board**, and ways to improve the Squadron's **social calendar**. As always, the Christmas party is free to all paid-up Squadron members and one guest each. Dinner will be catered by **Stonefire Grill** and will include multiple options for the main course plus several sides and salads. The Squadron is hosting a full bar that will be stocked by head bartender **Larry Wolfe**. The **traditional raffle** for members who brought show and tell items over the past year is looking good. Voting for the 2023 Squadron board will happen at the November meeting and the "new" board will be introduced at the Christmas party. Some ideas were discussed for group field trips and it looks like a day at the **USS Midway** (San Diego), **USS Iowa** (Long Beach), and the **Miniature Engineering Craftsmanship Museum** (Carlsbad) are leading the pack. I'll have more on that at the November meeting.

Then (*finally!*) we got into **Show & Tell...**

**Larry Wolfe** brought along a **North American F-82 Twin Mustang ARF** from VQ ARFs that he's donating for the Christmas party raffle. This is a pretty complete package but power and retracts are not provided. (Fixed gear is included.) For power, electric or a pair of .60-.70 four-strokes should do the trick.



**Tim Cardin** showed one of the wing panels from the **P-47 Thunderbolt** he's finishing for **Ed Woodson**. He talked about some of the complexities he's dealing with to get the wing working. He also showed some of the internal detail of the wheel wells. This is shaping up to be a beautiful (and *big*) model and will be flying soon.

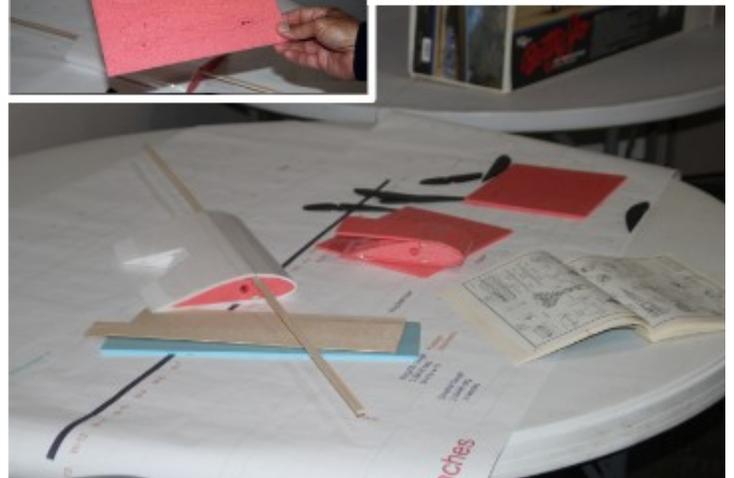


## October 2022 Squadron Meeting

**Chris Madsen** told a great story about his **Piper L-4 Grasshopper** and an unfortunate encounter with a tree. The 22-year-old airplane took a fair amount of damage but is now fully restored and ready for action. The L-4 was built from a Balsa USA kit (which Chris found wasn't exactly true scale) and is powered by a Magnum 1.60 Twin 4-stroke. The Magnum provides plenty of power to fly the airplane in a scale-like manner. The landing gear was a prototype by Robart and has held up well over the years. The airplane is covered with fabric and nitrate dope with butyrate dope providing the OD color. Markings are painted on. Chris came up with a clever way of making hinges from toggle bolts like the type you'd use to hang stuff on drywall. He said these have held up nicely over the years and have a scale appearance. The struts are formed aluminum with hardwood inserts. When detailing the cockpit, he made a number of parts using vacuum forming techniques. All in all, a great rendition of a classic airplane.



The always resourceful **Jaime Colley** showed his progress on his **Fokker D.VIII (E.V) "Flying Razor"** WWI fighter. The D.VIII was a parasol monoplane fighter produced by Fokker Flugzeugwerke in 1918. Jaime has built several V.VIII's and really likes the airplane. He's building this one from his own plans that he drew from a dimensioned three-view. The airplane is about 1:7 scale and will have a 48" wingspan. Lately, Jaime has been looking for new applications for some of his fancy equipment. He figured out how to use his laser cutter to make ribs and other parts from 3/16" foam. Being made from foam, these parts weigh virtually nothing so he expects the finished product to be pretty light. His favorite building materials are foam and balsa or lite ply where extra strength is required. He uses Gorilla Glue, hot glue, epoxy, and CA to hold everything together. He'll be using an over-sized motor (electric, of course) and battery. This will result in a way overpowered model, but the weight will be needed to get wind penetration.



## October 2022 Squadron Meeting

Now that his TBM Avenger is complete, **Joe Trama** is collecting parts for his next project. This one will be a 1:5 scale **Grumman F8F Bearcat** and is based on a fiberglass fuselage with built-up wings and stab. Based on Jerry Bates plans, the model will have an 86" wingspan and will weigh in at somewhere around 38 to 40 lbs. Power will come from a DLE 85. Joe talked a bit about the Sierra Giant Scale landing gear. The gear is pretty complex with a double-action knee bend to simulate the movement of the full-scale version. Joe has realized that the learning curve on the control valve alone will be pretty steep.

When asked if the model will be ready for the Builders' Wing at the 2023 Warbirds & Classics, Joe suggested that 2024 might be a more realistic estimate.



**Steve Penn** talked about the 1928 **Pietenpol Air Camper** he's building from the Stevens AeroModels kit. He's adding a lot of scale detail that's not shown on the plans and has made a lot of mods already. The model was not designed with ailerons but Steve has added them. He'll use fabric and monofilament fishing line for hinges throughout the model. He made wheels from balsa disks using lightweight o-rings for tires. Covering will be CoverLite held in place using thinned Poly-Tak cement. He also built a replica Model A engine and radiator which are held in place with magnets. He'd heard of a full-scale Pietenpol that was built



to be powered by a Chevy Corvair engine and he might build that version next. He's hoping to have the model flying by the November Squadron meeting.



# A DAY AT THE FIELD

**Louis Van Tilborg** has nothing but good things to say about his E-flite **Fw 190 Butcher Bird**. Louis does a great job of flying his scale models in a scale-like manner and that comes through in a big way when he drives his Fw 190. He's only had the model for a couple weeks and has about 10 flights on it, but he said it's already earned a permanent place in his hangar.



**Jerry Smith** brought out his **Rutan Model 61 Long-EZ** for its first flight. With some help from Tim Cardin, the flight ended successfully. It started out a little rough until some gyro problems were resolved, but all in all, the model flew great. Jerry said it looks like the power configuration with the three-bladed pusher prop is just about perfect for the model.



## A Day at the Field

**Brian Young** has been flying this **Grumman F8F Bearcat** for about a year and a half. This version was rebuilt from a bad crash a while back (bottom photo). About all that remained from the original Bearcat was the rudder and stab. Brian says that with the DLE 120 at full bore the model flies at about 140MPH. This is a Jerry Bates fiberglass fuselage with a built-up wing.



A **Pitts S-12 "The Beast"** in the hands of a skilled pilot like OCMA Vice-President **Jim Richards** is an amazing thing to see. Jim is a very skilled pilot and certainly knows how to get the most out of this kind of model. He's has only had the model for a short time and the DA 120 in the cowl is just getting broken in. He says the 85", 27 lb. model flies like a dream and he's very happy with it.



## A Day at the Field

**Andy Borgona** has been flying his ParkZone **Albatros D.Va** for a while now and he still loves it. The model came with most of the electronics, including a Spectrum-compatible receiver, already installed. Andy had to add a 3S 1800mAh battery and the radio. The 42" wingspan model weighs in at about 43 oz. ready to fly and does fine in most conditions encountered at OCMA Field.



Although it didn't get airborne this day due to mechanical difficulties, here's a sneak peek at **Ed Woodson's P-47 Thunderbolt** as completed by **Tim Cardin**. The model is complete and will fly as soon as Tim finds time between family and hobby commitments.



# MONTHLY MEETING NIGHT

**Monday  
November 14, 2022  
7:00pm**

## The November 2022 Meeting is On!

Remember that this month we're **voting on 2023 board members** and making final arrangements for the **2022 Christmas Party**. If you don't care about either of those items then maybe we'll see you in January. Otherwise, clear your Monday evening calendar and *get your butt in a seat at the meeting!* 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. This will be your **last chance** to do that this year.

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.

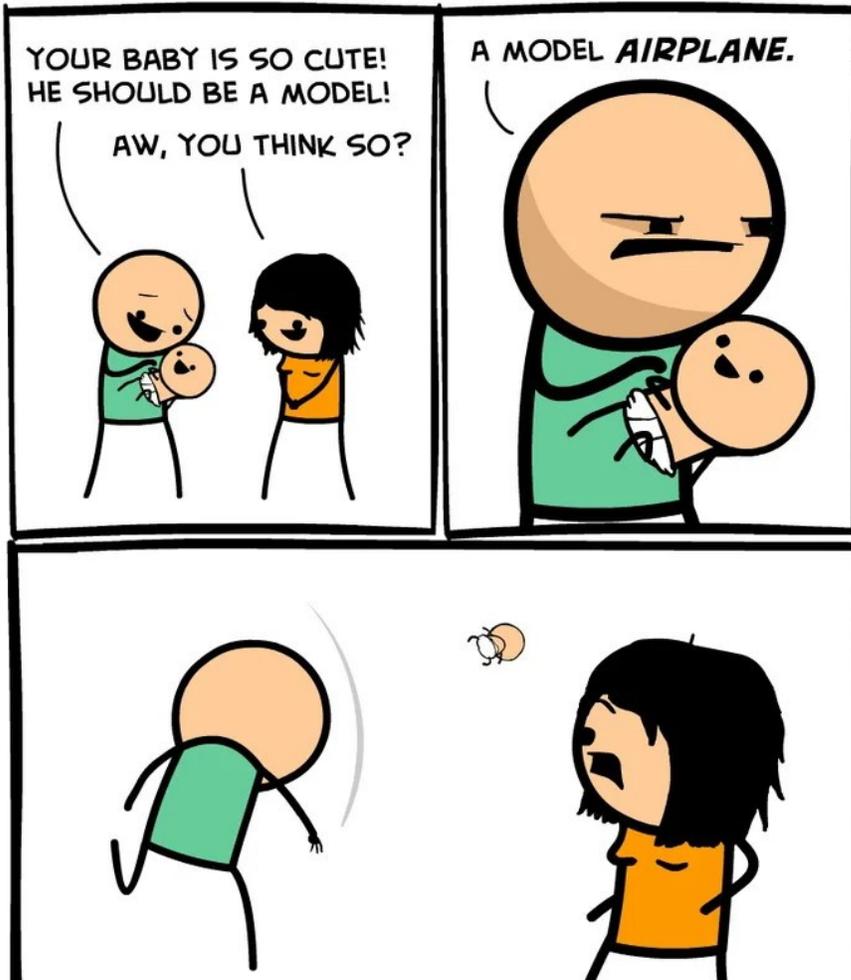
# UPCOMING EVENTS

## 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
Nov 10-13	<b>One Eighth Air Force</b> AMPS Field, Glendale, AZ	<b>One Eighth Air Force Fall Scale Fly In</b> One Eighth air force is holding a scale four day fly in at AMPS field Glendale Arizona. Open to all current AMA members and clubs. Food vendors all weekend and dinner on Saturday night. Come on out and bring your buddy's and family November 11/10-11/13.
TBD but Probably Nov 2022	<b>Hemet Model Masters</b> Santa Maria, CA	<b>Scale Masters Clinic</b> Beginners' workshop hosted by U.S. Scale Masters. Bring your own model & learn skills required to be confident & competitive. \$10 landing fee. Includes lunch. Class starts at 8:00am. Covers all aspects of model selection, documentation, presentation, briefing judges, flying, etc.

**DISAPPOINTED**



[ed. note: I'm sure there are more events coming up in District 10 but I'm not able to figure out how to use the AMA Event Calendar to find them. I've asked them for some help and maybe in December's newsletter I can provide more options.]

**IF A 747 CAN CARRY THE SPACE SHUTTLE**



### 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.

We will prepare you for your first scale contest



Open to all a/c types\*\* and power source

# SCALE OPEN

# SCALE MASTERS CLINIC

HEMET, CA

PLACEMENT ★ PRECISION ★ REALISM

AUG 6, 2022

## IMPROVE SKILLS & CONFIDENCE!

Practice Flying In Front of Judges

Bring your favorite scale model and we will teach you additional skills to be confident & competitive



### What is Static Judging?

# Beginners Workshop

will focus on the entry-level class

Craftsmanship judging available for improving your scores

Landing Fee: 0  
Class Starts at 0800 | Lunch available at 1100

- Most Often Asked Questions & Misconceptions
- Selecting Best Model Based on Skills and Class Entered
- Preparing Documentation for Model of YOUR Choice
- Learn to Brief Flight Judges & Selection of Flight Maneuvers
- Understanding Relationship w/your Caller
- Score Sheets / Judging Your Model / Contest Flying Basics
- Q&A Session w/instructors, judges, coaches

Learn About the Different Classes:

- EXPERT
  - TEAM
  - ADVANCED\*
  - PRO/AM PRO\*
  - PRO/AM SPORTSMAN\* (\*ARFs allowed)
- (\*\*No 3D flying)

AMA Required to fly | Turbines: waiver required

Clinic Run By  
U.S. SCALE MASTERS  
[www.usscalemasters.org](http://www.usscalemasters.org)

C.D./ Contact: Curtis Kitteringham  
[cak11@cox.net](mailto:cak11@cox.net)  
(760) 807-5519

Hosted by  
HEMET MODEL MASTERS  
[www.hemetmodelmasters.net](http://www.hemetmodelmasters.net)

## 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.

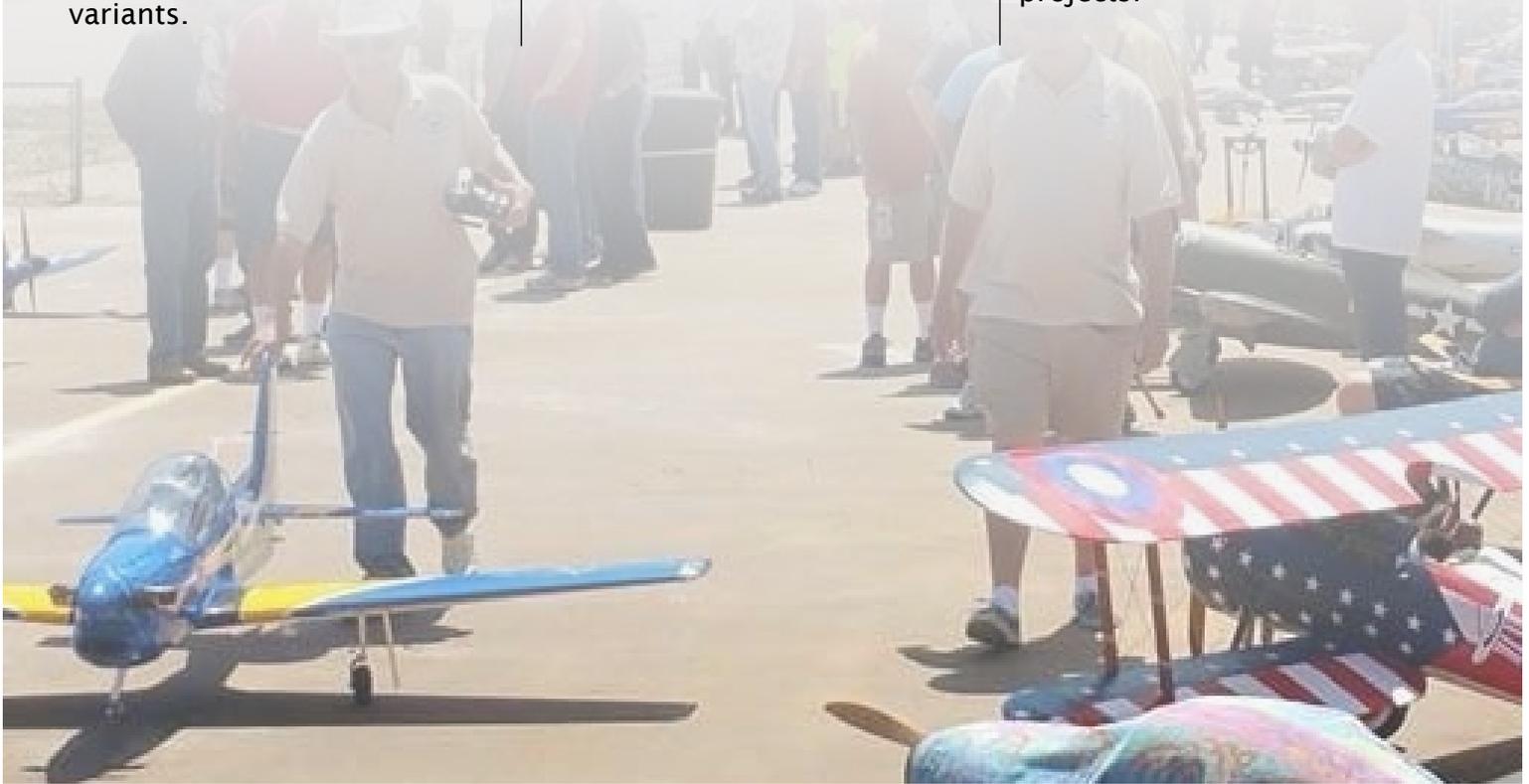
Scale Squadron Club Meetings are held on the

**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.

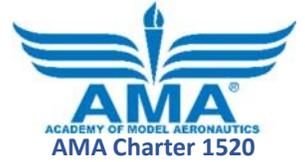


# SCALE SQUADRON OF SOUTHERN CALIFORNIA

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.