



# Wash

#### Prop Wash is a publication of the Piston Poppers Inc., an AMA U-control club

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Any articles for the newsletter are greatly appreciated and will be published as soon as possible.

### February 2020

The March Building Session will be moved to Saturday March, 28th.

**January Meeting Old Business:** None

New Business: Dues are due this month. This coming Sunday on the 2<sup>nd</sup> is the next building session, it starts at around 9am. The February meeting on the 27<sup>th</sup> is the swap meet. Tom Sontag gave a field report, the airport field has nice and smooth snow if anyone would like to fly with ski's. The porta-potty is still at the school field. They must have removed the wrong porta-potty last fall.

Show and Tell: Jeff Lange showed us how he makes his own plastic bellcranks. He found the 3/16" thick material at Ax-Man. He also uses 8-32 screws instead of 6-32's for the pivot. John Christensen brought in his Mobest, it's an RSM kit and he's very

pleased with it. It weighs 52 oz on with a 58" wingspan and has a Tom Lay ST-51 and uses a 12-5 prop. Tom Sontag showed us his P-38 from Don Lutz. It has 3-line control and he's thinking of using a pair of K&B 35's on it. It's 375 sq in and weighs 6lbs 20z.

Jim Gevay



http://www.pistonpoppers.com

#### **FLYING DAYS**

Meeting night brought out some show and tell with a few reminders.

After a small business meeting Jeff Lange showed us how he sets up his control systems using a homemade bell-crank made from a plastic. Reminds me of the black plastic material that Sig has used for their bell-cranks. Jeff says it takes about 10 minutes per crank with his jig of course.

Next up was John showing off his Mo' Best creation powered by a Tom Lay Super Tigre .51. John is inching to start the trimming process as he feels this is the plane and motor combination to put him over the edge.

Tom was next with a P-38 he purchased from an estate of a former modeling craftsman. With all the scale details, throttle control and set up for clockwise flight. Tom said the wing loading would be huge as the model weighs in over 6-LBS. it is a beautiful sight.

Thanks guys for the demo and show and tell, it really makes the meetings informative and interesting. Next on the meeting's agenda were a few reminders, number one the next building session this Sunday. I'll do a write up of what happens. The next reminder is the Feb meeting is the annual swap meet sale (actually selling our no longer needed but still good stuff we all want and need). So clean out your shop, bring it to the meeting and remember that 10% of the sale goes to the club treasury.

Speaking of the club treasury our third reminder of the night is that it's time for club dues. This is what pays for field maintenance, up keep of equipment, the Porta-potty etc. etc. our dues also pay for the site insurance for the flying fields we use to fly and enjoy our models.

Along with the normal socializing this meeting was another success.

The first photo shows Jeff describing his control system and how he made his bell-crank along with the jig used to drill holes in their proper place.





Mo' Best power Super Tigre 51 Modified by Tom Lay







Tom's P-38



2/2/2020

Building session #2 is in the history books for this year.

Ivars was sanding on the Trophy Trainer getting rid of a few imperfections in preparation for final top coat of paint.

Keith, working for Rachel who could not make it today worked on her project The Jess-ter 2 kit.

Jeff and I soldered up my push rod and adjusted the clevis. Then Jeff spent some time with Jim Perry shortening some flying lines and finishing the ends of a new set.

Special thanks go out to Tom and Ivars for the combined job of covering my Challenger. Thanks guys.

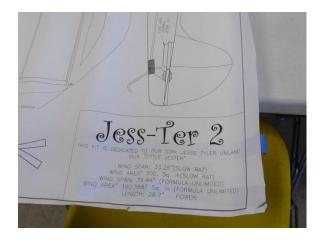
Jim G, Dave V, Steve S and Steve F joined us to partake of the social part offer some suggestions and hopefully pick up a tip or two.



Sanding Ivars



Keith and Jim working on Rachels





Soldered push rod



Tom covering with Ivars instructing. Towards the end Ivars was hands on showing us how he works Ultracote around the wingtips. Thanks again fellow club members.





Other than tank I'm ready to fly.

Bob Cheney

# SIG FLY IN... June 19-20

https://sigmfg.com

# **Three Fifteens Project**

Fifteen size airplanes can be a lot of fun. They are compact, for quick trips to the flying field or to carry on business trips and vacation, yet large enough to handle many weather conditions. Some, like the Sandberg Challenger, can fly the full pattern with authority. Here is Challenger #1.



This year I hatched the idea of building three completely different 15 size airplanes. The micro shop held an adequate supply of engines, wings and balsa to try different things. Plus there were a few half-baked ideas bouncing around in my head. The ideas coalesced into the Three Fifteens

Project, I'll call them Challenger #2, Barracuda, and TwinFoil.

# **Engines**

The Enya 15 engines are a nice-looking motor with a shiny head and solid feel. I've been told Enya's run well and last forever once broken in. These appear to be new or nearly new with good compression. Two of the engines are Mark III's with a threaded tap in the middle of the exhaust that accepts a bolt through the center of Jim Lee's tongue muffler. The Mark IV has a strap on factory muffler, but I replaced its carburetor with a venturi and NVA from Jim. Not sure how the engines will compare, but it will be interesting.

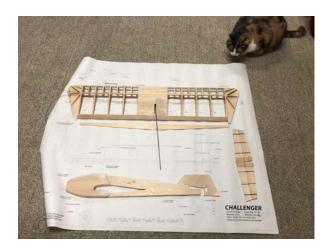


# Challenger #2

For the first airplane, I started with a partial kit in the form of an unfinished wing and fuselage. The wing was nicely mounted by the previous owner with bell crank, lead outs and control rod. It only needed repairs of a few ribs and wingtips. The fuselage needed a

hole for the wing and sanding, while the overall airplane needed tail feathers, plywood doublers, a trippler, and landing gear.

Here she is in the final stages prior to assembly. Mia the cat is inspecting.



To cleanly trim the plywood doublers after gluing to the fuselage, I ran the fuselage around a flush trim profile router bit. The bit has a bearing of the same diameter as the cutting bit. The bearing rolls along the balsa between the doublers, while the bit cuts away the excess plywood. I've tried this with a Dremel tool with some success, but the table mounted router worked much better, ensuring perpendicular surfaces.

For the trippler, I cut balsa and sanded it to fit, then used a belt sander to rough in the outer dimensions. I'll cut landing gear from bar stock and drill it to fit, then assemble the airplane. It'll be interesting to compare its final

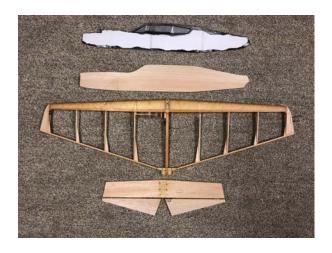
weight, handling and motor to Challenger #1, which flies well with an O.S. 15LA engine.

#### Barracuda

Steve Wilk or Jim Ehlen sold several Combat Kittens to me last year. They are a trimly build airplane from somewhere in Eastern Europe, well build and designed for a beam mounted 1/2a engine. One airframe is in excellent condition and is ready for a recently restored Cox Medallion, while one of the others had propeller-like perforations in its wing and through a rib or two. We probably can guess what caused it.

After removing the plastic film on the damaged wing, the idea came to me that the wing had a slick 1960's muscle car feel to it. After thinking about the muscle cars of the 1969's, the one that stood out was the 1969 Plymouth Barracuda Fastback. With a little stretching, I thought it would make an interestingly shaped fuselage.

Here is the current state of the build: the bared wing, fuselage, and horizontal tail. If it needs a vertical stabilizer, perhaps the spoiler fin of a Daytona Charger would look nice. I may need help getting a 3D effect on the body, I mean fuselage. The wing chord is HUGE compared to the fuselage – so it will be short coupled. The wing has an integral bladder tank, so space on the fuselage for fuel is unnecessary, hopefully for a clean look.



# **TwinFoil**

Awhile back, I ordered several solid balsa wings from Sig. They are flat bottomed with a ¼" thickness and 4" chord. The flat bottom works fine on airplanes that fly upright, but you want to avoid all temptation to fly the airplane inverted. I did that one time with a little 1/2a Stagger Wing. Thrilling, but didn't turn out well.

My thought was to make a light, symmetrical, balsa winged airplane for beginner assembly and flying. Perhaps it would allow a loop or inverted flying. To test the idea, I hogged out the wings using a table saw with the fence set at an angle, then glued the two foils bottom to bottom for a symmetrical wing. Hence "TwinFoil".



I left balsa near the center of lift as a glue point and to strengthen the wing. Then i glued ¼" square stock to the trailing again for make it more rigid. In retrospect it might have been better to cap the trailing edge with ¼ x ½ " stock to keep the center of lift near the 1/3 chord point. I haven't decided if I will bury the bell crank and lead outs within the wing or mount them on the surface, but in either case I'll cap the end with thin plywood or a sanded balsa block.

Here it is with fuselage and tail fins, but before finishing the wingtips and stabilizer.



## **Balancing**

With the scratch-designed Barracuda and TwinFoil, I'll tape down all of the airplane parts to the fuselage. This includes engine, bolts, fuel tank, landing gear and tail feathers, but excludes the wing. Then I'll locate the center of gravity on the fuselage, and then cut a hole for the wing so that the center of lift is just behind the center of gravity. This should balance the airplane without adding weight. I probably will cut the wing and stabilizer along the thrust line.

Fly and Build On Friends,

Tom Sontag

# **Interesting Email I Received**

Sean,

I felt I must sit down and drop you a line about seeing two of your videos today. I was blown away, and received the re-spark I feel I needed.

I am 73, and live in Fort Worth, Texas. I first started flying CL models back in the late 1950s, but I've been away from it for some time now. Things have really changed here over the years, for the public is not very kind to what they feel is the horrible noise the engines make. When I was young, in Dallas, we could go to just about any park, or parking lot, and enjoy a full day of flying. Not anymore!

I still have a number of airplanes, and engines, and all the other things that go with it. But, it's all been idle, and collecting dust for years, in storage. I have three grandsons, 8, 10, and 12, and a 3 year old granddaughter. I'm not sure if any of them would get hooked on control line, but your videos have given me the inspiration to break this stuff out, and give it a whirl.

I own my own business, with my 38 year old son. He flew some with me when he was younger. I'm a USAF veteran, and a former Police Officer with Dallas PD SWAT, and DFW Airport Department of Public Safety. Married to my wife for almost 54 years.

I'm not certain I could go around in a circle again, but, I'm now willing to give it a try. I have several ARFs that are NIB, and never been built. I guess that might be my only weakness, is that I don't think I could do any building anymore. Maybe I can locate someone willing to assemble these planes for me for a fee.

Anyhow, I won't keep you. I just wanted to give you a big thanks for your very informative videos, which were so easy to follow and understand. You covered so many of the basic details new flyers need to know, that most guys don't address.

Thanks so much, again,

Regards,

Steve Tenpenny Fort Worth, Texas 76244

PS – Just FYI. I remember, in 1958, or 59, at the Dallas Naval Air Station, seeing George Aldrich fly his Nobler, and win the competition there.

# All EAA Chapter 237 Building Tenants

Due to increased airport security measures, be advised that access to the Anoka County Airport will now be limited at night during the hours of 6:00 PM and 5:00 AM. For those of you who have your meetings at our chapter building in the evenings, this means you will now need to enter an access code on the box outside of the South airport gate in order to enter. You will find the details - including the gate access codes in the following MAC document.

# **MAC Airport Access Document**

Obviously, you will need to share the gate codes with your members so that they can attend your meetings, but we are being asked to not make this information available to the general public. That is why we are sending this information to members and groups on our email list but have not posted this on our EAA Chapter 237 website.

Thanks for your cooperation and understanding.

Kirk Fjetland EAA Chapter 237 President



MEETING NOTICE: Not Sure..have not heard 2020— Anoka County Airport at 7:30 PM

The Piston Poppers Club meetings are held on the last Thursday of each month at the Anoka Co. Airport in Blaine, MN. Enter the airport road from the automatic gates on the West side, turn right and go south past the airport beacon to the 2

