



OMAHA NEBRASKA
AMA 857

TAILSPIN NEWSLETTER

December 2017 Issue

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A Word from the President



Tell you folks, time flies. So keep that in mind when you put off building that special airplane kit, and putting it in the air. I know some who have stashed away that special kit for a rainy day. Now those folks are second guessing themselves years later, wondering if the kit will ever get built.

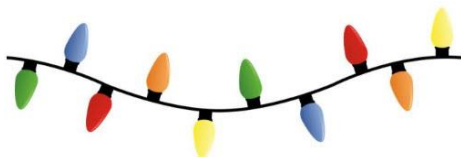
The *Lincoln Skyknights* are holding their annual auction February 3rd. That auction usually brings some good buys. Seems like everyone cleans out their shop and reduces their inventory of aircraft over winter.

Thank you **Dave Kelly** for the past newsletter installments of your father's 40 missions flown in WWII over Europe. According to Nelson, several members commented how they appreciated reading about his missions.

To all of you I wish Happy Holidays, Merry Christmas, and a Happy New Year!

See you at the Field!

~ Rick Miller



Next Meeting: Jan 10th 2018

Papio NRD Building 153rd and Giles Road



Vice-President's Corner



Flying season is pretty much over for me. I don't do cold anymore. It's time for me to turn my garage back into a wood shop. I have several things I need to get made this winter. I will still get a couple of planes repaired, and a couple finished to have ready for spring. I should have 5 or 6 ready.

Looking forward to seeing some new planes at the field this spring. Have a good winter!

Fly 'em!

~ Rick Haneline

Treasurer's Report



The renewals are just starting to trickle in for the 2018 flying season. So if you are planning on being a Western R/C flyers member, now would be a good time and send me a Christmas present in the amount of \$35.00. I will tell Santa that you are a good boy and he will make sure that you are eligible to fly at one of the nicest fields in the area.

Let's help Nelson out and send in articles on the new projects that are under way along with pictures.

Here's hoping that you all have a Merry Christmas & a Happy New Year.

Your Treasurer ~ *Dean Copeland*

Secretary's Meeting Notes



A Western R/C Flyers club meeting was held Wednesday December 13, 2017 at the Chalco Hills location. Meeting called to order by President **Rick Miller** 7:08 PM. (9) WRCF members present.

Treasurer **Dean Copeland** provided a summary of the treasury balance. A more detailed account including 2018 membership will be provided at the January 2018 meeting.

Old Business: It was mentioned that the Porta-Potty had been removed by the vendor early in November.

New Business:

Officer Elections:

Rick Miller reminded those in attendance that the WRCF Bylaws require that officers for the upcoming year be elected during the December meeting. The present slate of officers is willing to serve again in 2018 and no other candidates were suggested. It was moved/seconded and approved that the following serve as officers:

President: **Rick Miller**
Vice-President: **Rick Haneline**
Treasurer: **Dean Copeland**
Secretary: **Tim Peters**
Safety Officer: **Mike Lawver**
Field Marshall: **Jim Henley**

Website:

The previous WRCF website (weflyrc.org) is no longer operating. It was suggested that we contact **Keith Paskewitz** (*operator of the metro r/c flying website*) about options for maintaining a website or using Facebook. It was moved/seconded and approved to have **Tim Peters** contact Keith and reply back at the next meeting.

Mower Maintenance:

The diesel mower requires some minor maintenance—oil change and blade sharpening. **Mike Lawver** will inspect the underside of the mower for any unusual wear or issues that need attention. It was mentioned that many of the mower bearings are sealed and do not require grease.

Field Maintenance:

The safety fence needs some work; portions need to be reattached to the posts. There was considerable discussion about flight paths coming in from the North and the need to avoid the trees. There is a proposal to realign the safety fence whereby the North end of the fence is moved to the East. Not all are in agreement with this suggestion. **Rick Miller** will put in some marker posts so that pilots can become familiar with the proposed change. Idea being that the officers will get feedback prior to making the change permanent. It was moved, seconded and approved that Rick set up the posts. **Mike Lawver** suggested that we provide larger openings in the safety fence to accommodate larger aircraft and perhaps create an additional opening as well. There is a need for another table and repair to one of the existing aircraft stands. **Leroy Konecky** volunteered to take on that task.

Mike Lawver discussed the possibility of having a culvert /waste pipe installed that will help with drainage and perhaps provide better vehicle access to the flying site. There was discussion about the trees at the North end of the flying field. Removing the trees would take away any need for runway re-alignment. **Mike Lawver** and **Leroy Konecky** volunteered to contact the Mead facility's farm manager, and open a discussion about whether this can take place.

2018 Meetings:

The next meeting will be Wednesday, January 10, 2018 at the Chalco Hills location. Subsequent meetings will be held every (2) months thereafter. It was moved/seconded/approved that going forward, club meeting attendees will be consider to be members of the WRCF 'Supervisory Board' and will participate in voting on club matters.

SAS (Strategic Air-and-Space Museum) Annual Indoor Event:

This will be held Saturday, January 13 at the SAS site. **Tim Peters** will man the table. Additional help is always welcome.

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Meeting Notes Cont.

Field Damage:

Mike and Leroy have already provided some labor and materials to help with the repair.

2018 Events:

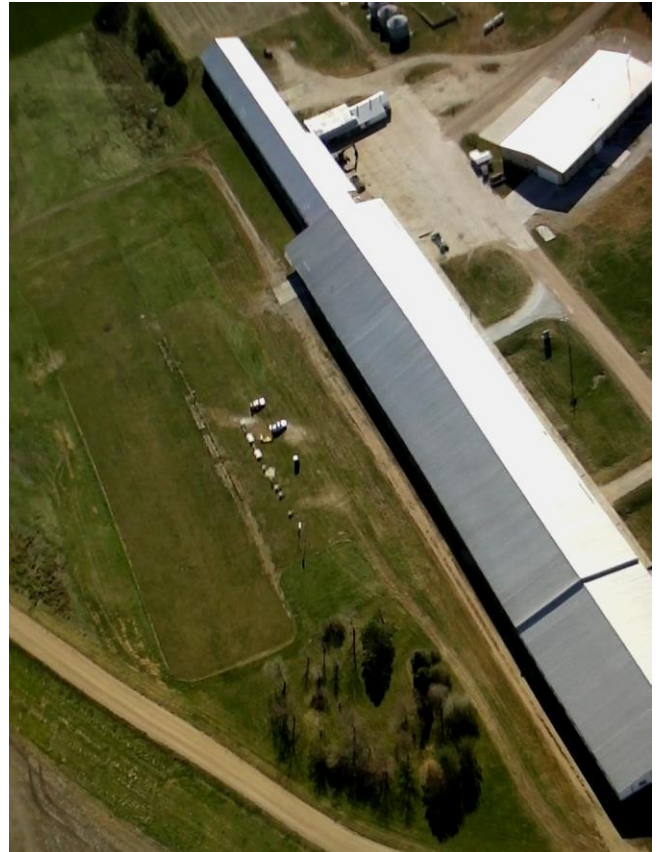
Two formal events are planned for 2018. The August **Bud Hall** Large Aircraft gathering and a Spring Fun-Fly. Dates are yet to be determined. Those present are also in favor of an informal monthly club fun-fly similar to the Old-Timers/Gliders events.

The Porta-Potty will be reinstalled April 1, 2018. Dean will contact the vendor

At 8:30 it was moved/seconded/approved to adjourn.

Show-and-Tell

Tim Peters brought his second *Flite-Test Viggen* electric ducted-fan jet along with the FPV platform that he uses with his *Olympic* sailplane.



Mead Field Aerials

Three interesting photos of Mead Field. Gives you a different perspective of our field and the luxury we have there. As you might imagine, these photos were taken by cameras in our RC airplanes.



Round the Skunkworks

By Tim Peters

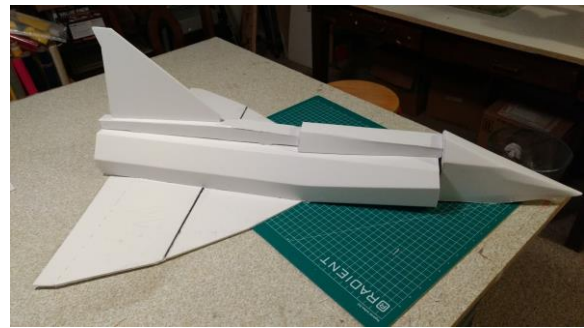


I had a plan for year #1 of retirement: Finish wood Bird-of-Time sailplane kit (*done*), learn more about autonomous r/c flight (*still-in-progress*), complete an auction purchase (*Andrews Aeromaster Biplane*) (*done*), and complete a Decathlon that I got from WRCF master builder **Jim Henley** a few years ago. Along the way somehow (*like a little kid*) I got distracted and sucked-into Electric Ducted Fans (*EDF*). The local hobby shop has displayed some really cool EDF jets that sport retracts and flaps as well. They seem like a really good value, but I kept visualizing the following.....Close your eyes and visualize along with me...then again I guess you can't read the article if you do that, so read on, but visualize with me.

I buy the jet (*don't forget to buy a few lipo batteries as well...they are larger and more powerful and more \$\$\$ than those 3s 2000 mAH lipos that I use in sailplanes.*) I assemble the jet (*it only takes a screwdriver and a few minutes as these are ARF's*). During assembly it is perfectly acceptable to make realistic and satisfying jet-engine-like noises to accent the experience.

I go out and fly the jet. It takes off successfully but since it's a jet, it accelerates to '*umpteen-hundred*' mph, which is about 80 mph faster than I can keep up with. With those limitations, the jet soon crashes into the runway traveling at '*umpteen-hundred*' mph, forming a crater and covering said crater with a blanket of itty-bitty foam aircraft pieces. The now-damaged \$\$\$\$ lipo catches fire, cremating the crater contents into a smoking slag of foam, plastic and metal. When I get home, my wife greets me with a smile and asks '*How did the new jet fly?*'

Are you starting to understand my hesitation? What if you could get the EDF experience without all the attendant fear-of-demolition? There is a way, and it is called *Flite-Test*. *Flite-Test* is a group of somewhat irreverent fellows who enjoy many aspects of R/C flight but aren't interested in hours of building and detailing their aircraft. They use a combination of 1/8 inch foam board and hot-glue to create many of their models. I started looking at their YouTube pages (*search You Tube for Flite-Test*) and saw a *Flite-Test* EDF jet named '*Viggen*'. The *Viggen* now gets blamed for distracting me away from my plans to finish Jim's *Decathlon*. And like so many of the *Flite-Test* aircraft, it is a whole-lot-of-fun for not a whole-lot-of bucks.



The *Viggen* was fun to assemble and the building methods are very different than the normal balsa-and-ply. The plans were downloaded (*free*) and printed on to about (30) 8½ by 11 sheets of paper. The sheets are taped together to form the plan pieces which are then cut apart and transferred to the foam boards. (*I buy the boards at the 'Dollar' stores for about a buck each.*) Cut the pieces out of the foam board and use a '*hot glue*' gun to cement everything together. (*I bought a glue gun for about \$8 at Walmart along with a package of glue sticks*).

The EDF is a 64 mm unit made by *FMS* and purchased from *Banggood* (*China*). It comes assembled along with the correct size out-runner motor. The motor uses a 40 Amp speed controller. Two metal-gear digital servos (*\$5 each from Banggood*) control the elevons. Add a receiver and that's all that is required.

I painted the *Viggen* with hardware store spray paint. You do want to be careful not to spray too heavy a coat as the paper covering the foam will blister and warp the underlying foam. Building with these materials requires some getting used to. Don't expect a really polished result from your efforts. Foam board will dull your #11 X-Acto blades fast; I used a hone to sharpen the blade after nearly every cut.



The *Viggen* flies pretty well. It is important to use dual-rates especially on the ailerons. The battery is a 3s 2200 lipo with a 35C charge rate. That provides about a 4-minute flight for the 2 ½ pound aircraft. Since the *Viggen* has no landing gear, each flight begins with a hand-toss, grabbing the top of the plane just in front of the vertical fin. A strong underhanded toss gets it airborne and ready for some fun. It is surprising to me that the flat-plate wing

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Round the Skunkworks Cont.

actually generates lift. I think the forward-facing horizontal stabs (*canards*) are angled in a manner that helps. I will say that the plane is somewhat 'pitchy' so a gentle hand on the elevator is important. The *Viggen* does trim pretty well in both roll and pitch. It lands gently; it is fun to emulate the space shuttle with 'nose-high' touchdowns.



I completed a second Flite-Test EDF jet called the X-29. This one was set up for a 70mm fan using a 4s 3000 mAH lipo. Like the *Viggen*, the X-29 is also a flying wing and only requires two servos. Unlike the *Viggen*, the X-29 did not survive its test flights. It was a case of not-enough wingspan and too much weight. I cannibalized the electronics and fan which will go into.....yet another *Viggen*! Look for *Viggen* #1 and *Viggen* #2 at a WRCF field near you sometime soon.

And yes, Jim, I will get the *Decathlon* completed this winter. I have an OS 40 2-stroke that fits perfectly along with a Pitts-style muffler.....unless I get distracted again.....



~ *Dues for 2018 are Payable now thru April 1st. Thanks for your Support. ~

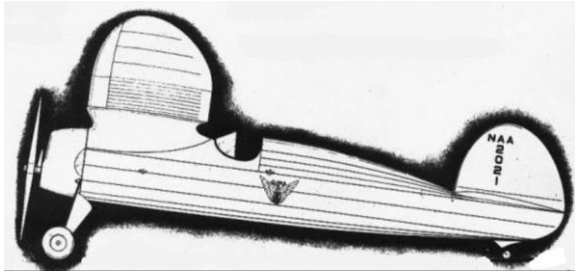
*Your dues (\$35) may be mailed to Dean Copeland, Treasurer at 15668 Fountain Hills Dr. Omaha 68118



EP Experimental Design Back to Mead

After a 25 year absence from Mead Field and the Western Flyers club, both **Skip Prusha** and his experimental electric powered design were dusted off for a return. In the early 90s, Skip was coming up with his own setup for electric power with not much available from manufacturers. This was pre-ESC. The airplane he designed and built around his EP setup needed a large wing area to carry the then heavy batteries. The airplane had on-board 2-speed switching for powering the plane at takeoff and in flight. Skip will have his upgraded airplane back at the field next flying season. The photo was taken in October of this year.





Scratched New Ruler

By Nelson Carpenter



About a year ago I started scratch building an old timer airplane from plans drawn up by Henry Strunk in 1940. Of course back then, these models were designed and built for free flight. It wasn't until years later that they were resurrected by modelers for radio control with rudder, elevator, and throttle.

The *New Ruler* was an old timer that I've admired and just happened to come across the 1940 plans from Dean Copeland. I had the plan sheet enlarged 115 percent at a print shop. This provided a wingspan of 81 inches and fuselage length 56 inches which was my goal. I modified the wing design by eliminating the polyhedral and went with just a dihedral having a 3 inch lift on each wingtip. Why? My thought was that the polyhedral was more suitable and needed for free flight to provide lateral stability in flight. Whereas with radio control and rudder authority, not necessary. At least in my mind. Besides, I like the look of my wing now.

Without a rudder or elevator on the original plan, I had to come up with something myself. Also, I took liberty with the cowling design, as well as made my cowl easily removable at the field with two nylon screws. The *Saito .45* four-stroke is fully enclosed with an exhaust "hole" that may or may not be adequate for cooling. I might be modifying that later. The glow plug connection is remotely accessed through the cockpit.

One question I had to answer while building the *New Ruler* was where to locate the center-of-gravity (CG) which wasn't provided on the plans. I consulted our area "vintage airplane guru" Dick Behrens and also Loren Blinde who both have much experience with old timer airplanes. We decided that with a "lifting" horizontal

stab on this airplane, the CG can be shifted from the standard 33% to 55-60% of cord. Identifying the CG is key on the *New Ruler* as there is a short moment forward of the wing's leading edge. Initially, I am going with 50%.

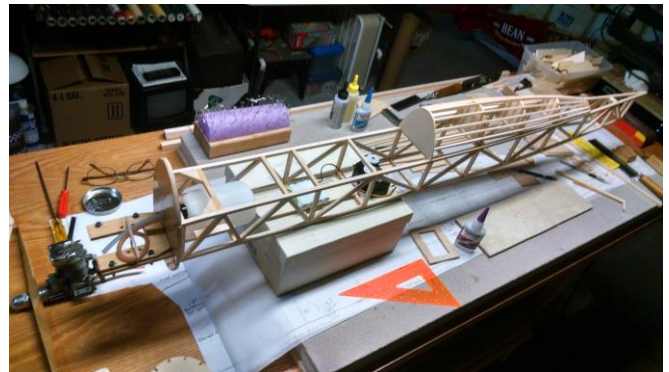
If I had gone with the 33% rule, I'd have to use over a pound of lead to fit in the nose. Try melting and casting a pound of lead. Larry Inness and I did just that, but we believe our brains are still thinking straight. Of course, we did this outside with plenty of air circulating.

The photos in this article show some of the construction steps I have taken with the *New Ruler*. At this writing I am getting ready to fiberglass the cowling and pylon supporting the wing. Then I will paint that area and complete covering the entire airplane with transparent violet *Ultracote*. Trim color yet to be decided.

If anyone has any questions or comments about my build, feel free to contact me at Nelsonsc3@cox.net.



With an extra plan sheet, I made templates for the ribs and turtle deck bulkheads.

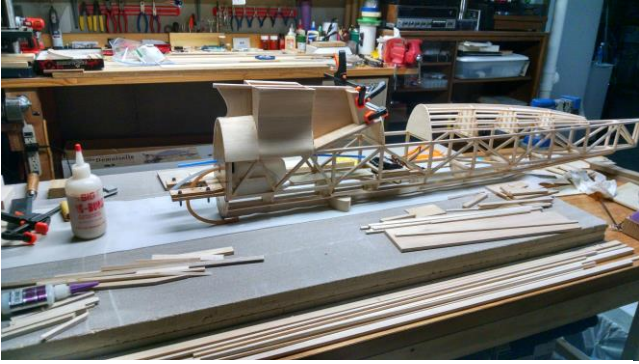


Constructing the fuse was straight forward. Servos were installed under the open cockpit for easy access. Pull-pull for the rudder, and an inexpensive Walmart carbon fiber arrow shaft for the elevator.

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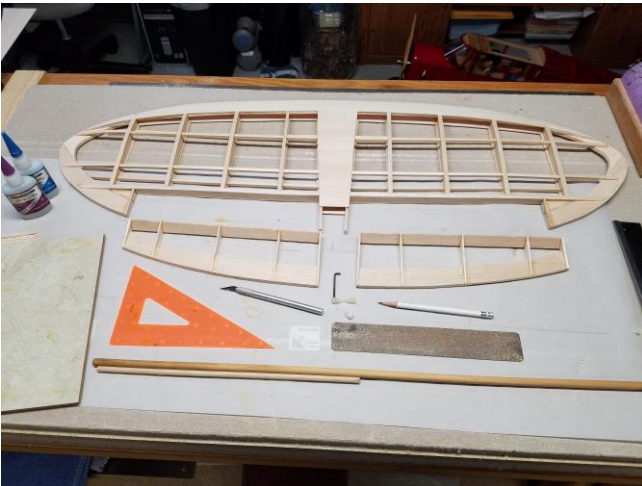
Scratched New Ruler Cont.



The wing's pylon structure was somewhat complicated with the compound curves I had to contend with while sheeting. It is this area and the cowling that will be fiberglassed and painted. Rather than try to conform the Ultracote covering to this surface.



Bottom of left wing panel. Extra spar added along valley of under-camber wing section to provide a surface to iron down the covering.



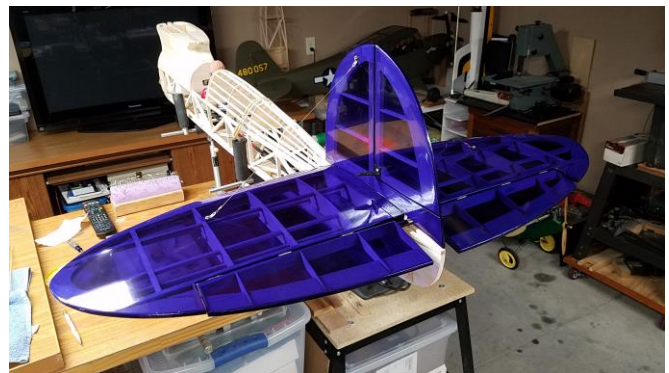
The original plans did not allow for an elevator. This was my best judgement on what would work on the radio controlled *New Ruler*.



The 81" span wing will be rubber banded to pylon.



The elevator and rudder trial fitted to the fuse which followed with setting up the arrow shaft pushrod from servo to elevator horn.



Covered the tail section (*transparent violet*) and prepped it for pull-pull connection on rudder. Also a carbon fiber push rod down passed down center of fuse where it connects to a single horn for the elevator. Added stranded wire for bracing the vertical stab.

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Scratched New Ruler Cont.



Gear installed and purposely angled forward with use of heavy wheels to get the CG forward more.



Top 2/3s of cowl removable. Large "exhaust" port for either pipe or muffler clearance.



Nearing completion. Balsa sheeting to be fibreglassed along with the cowling.



Saito .45 exposed in "keyhole" with exhaust pipe extending out the side.



Western R/C
Flyers

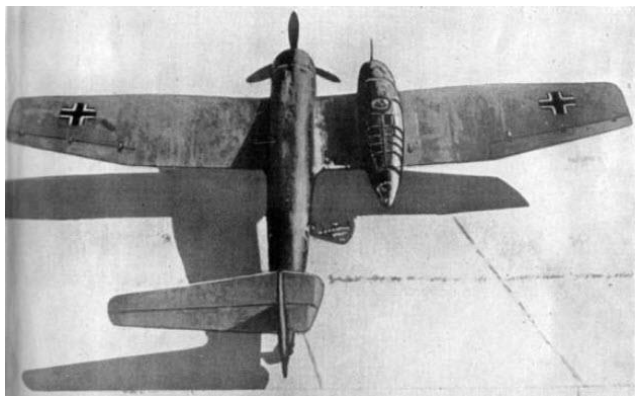
"The PARALLAX EXPERIMENT"

By Jud Bock



One day this past late summer, I was perusing one of the AMA mags, and happened to see a picture of a plane in the "What Members are building" page, of something called a "Parallax." As I had seen pictures of a WW II German plane with similar lines, I decided to research it on the web. I found pictures of it and it was called a "Blohm and Voss (BV-141)" manufactured by the BV Company in the late 30's. I marveled that such a weird looking thing could even fly, and researching further, I discovered a video of test flights back in Germany in the day, (*obviously movies at that time.*) If you want to take the time to view it, here it is (1:12 min):

<https://www.youtube.com/watch?v=V9GqxOAofio>
...proof that it really does fly.

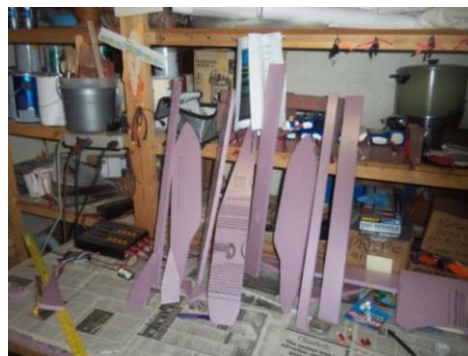


So, I decided to contact the builder on line, which I did, a real nice fellow by the name of Terry Dunn. We chatted on line about the model, and he told me that while it is not a beginner's plane, once it gets over the first hairy flight, it flies reasonably well, and he even does loops and rolls with his.

The plans were available at the AMA site, so I ordered them and begin work on it. The first thing I noticed was the weird materials it called for, some of which had to be ordered and only found on line. Most of the plane is constructed out of plain old 1 inch blue insulation foam, found at any lumberyard. Of course, you must buy a sheet of 4 X 8, so I had enough of that stuff to build 3 or 4 planes. It also called for rigid foam, two sizes (*thicknesses in mm's, but in English, about 3/16th and 1/8"*). They had the 3/16th in stock, but not the 1/8, so I just did that in 1/8th balsa. Also, some carbon fiber tubing was required.

Finally, I had all of the materials in the shop, but had to find glue that would work with foam. I bought some of the foam-safe CA, but wasn't real impressed with it. It worked after a fashion, but certainly not as well as regular wood CA. So, I trekked to the local *Ace Hardware*, and found some tubes of all-purpose glue that had about the same viscosity that epoxy does, but took overnight to set up well. It seemed to work better than the foam safe CA, so I used it on most of the plane. I also used some regular white Elmer's, and it worked O.K. too.

Cutting out the pieces of foam was no big deal, and I had it all cut out in a couple of hours. The plans and the instructions were well done and easy to follow, and in about a week of spare time, it was basically framed up. The motor and ESC I had on hand, but the room in the fuselage is tight, so getting things where you want them for balance purposes is challenging. I failed to have the right size battery, so had to order one the right size just for it.



When I completed it, I thought a military paint job was called for, and opted for a desert camo job. I went to the local hobby store, and bought three small cans of camo spray; one desert tan, one desert brown and light blue for

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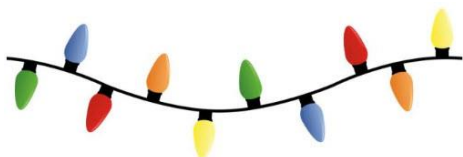
The PARALLAX EXPERIMENT Cont.

the underside, thinking because of the small size, (about a 30 inch wingspan) that three cans would be more than sufficient. As it was 5 bucks a can, (ridiculous, but since I was only going to use 3 cans, I conceded) and headed home to do the painting duties.

At this time in my tale, I would like to point out that there are perhaps 2 tablespoons of actual paint in one of those cans, which was unbeknown to me at the time of the purchase. I decided to spray the bottom first, and when the can was empty, I still had at least 2/3rds of it left to paint. So, since I had started with this overpriced hobby shop paint, I had to finish, and again visited the shop to pick up two more cans of blue and one more can of each color for the camo, now totaling 7 cans of paint for this little 30 inch wingspan plane that probably will not fly for more than 2 seconds. I now had 35 bucks worth of paint in this plane, which had I gone to the local Ace, would have cost me less than half that. With foam, most any enamel will work.... something to keep in mind if you build with foam and intend to paint it.

So, in conclusion fellow modelers, if you ever think that you can build cheaper nowadays, rather than just go buy a tried and true ARF, you are sadly mistaken. However, if you want to have a cool looking plane at the field, and hopefully one that will fly and look like the pics below, you must suffer the consequences of builder's remorse. See you at the field....Jud

(Author's Note) Terry Dunn, the designer, suggested painting it a bright color, as it has a tendency to get away from you in a hurry. Sadly, he mentioned this right after my 35 buck paint job.....



*Western R/C
Flyers*



Return of the Dawn Patrol

By Nelson Carpenter



If former club member **Dean Dingman** was still with us, he'd be one happy modeler. Some 20 years ago, Dean was instrumental in getting others in the area interested in modeling WWI aircraft. Many built and flew them at gatherings of the "Dawn Patrol." That was Dean's passion.

This past year, **Larry Inness** and I each finished building our 1/4 scale *BUSA Sopwith Pups*. We've been flying the heck out of them in formation over Mead Field. Our Pups look realistic in flight because they don't race around the field. They fly realistically slower with their large wing areas and *Zenoah G-26i* motors. Sound good too!

Flying the Pups has gotten the attention of other club members who want in the game. We can expect more of both Allied and German aircraft in the skies next flying season. *Balsa USA (BUSA)* kits have been purchased and building has begun. There may be more underway that I don't know about. A couple of WWI models were bought at this year's auctions by a few members.

Below are those I know about who will be flying their WWI aircraft come next year. If you want to learn more about this "movement", do make contact. We'd like to see more WWI aircraft flying with us. Currently the Germans are outnumbered, and will need help. Join us!

Larry Inness	BUSA 1/4 scale Sopwith Pup
Nelson Carpenter	BUSA 1/4 scale Sopwith Pup
Steve Rasmussen	1/4 scale Fokker DR-1 Triplane
Loren Blinde	Hangar 9 Fokker D-7
Jack Barry	BUSA 1/4 scale Nieuport 17
Bernie Baker	BUSA 1/4 scale Nieuport 28
Tom Wild	1/3 scale Fokker Eindecker





~ 2017 Western R/C Flyers Event Schedule ~

Schedule for 2018 to be determined.

January **2017**

- **Saturday, Jan 17th** - Strategic Air & Space Museum's Indoor Air Show 2017

February **2017**

March **2017**

April **2017**

- **Saturday, April 15th** – Old Timers Fun Fly with Glider Fly - Starts at 8:00am with flying until noon.

May **2017**

- **Saturday, May 20th** – Old Timers Fun Fly with Electric Glider Fly - Starts at 8:00am with flying until noon.
- **Saturday, May 27th** – Scale Fun Fly at Mead Field starting 9am.

June **2017**

- **Saturday, Jun 10th** – Annual Spring Club Fun Fly and Swap Meet at Mead Field starting at 10:00am. Open flying.
- **Saturday, June 17th** – Old Timers Fun Fly with Electric Glider Fly - Starts at 8:00am with flying until noon.

July **2017**

- **Sunday Jul 9th** – Western Flyers Open House Fun Fly. Starts at 9:00am with flying until dark.
- **Saturday, Jul 15th** - Old-Timers Fun Fly with Electric Glider Fly - Starts at 8:00am with flying until noon.

August **2017**

- **Saturday, Aug 19th** – Old Timers Fun Fly with Electric Glider Fly - Starts at 8:00am with flying until noon.
- **Saturday, Aug 26th** – Bud Hall Large Aircraft Fun Fly. Aircraft restricted to IMAA criteria. Landing fee \$10.00 provides lunch and flying. Rain date Aug 27th.

September **2017**

- **Saturday, Sep 16th** – Old Timers Fun Fly with Electric Glider Fly – Starts at 8:00am with flying until noon.

October **2017**

- **Saturday, Oct 21st** – Old Timers Fun Fly with Electric Glider Fly – Starts at 8:00am with flying until noon.

November **2017**

December **2017**



Western R/C Flyers Inc. 2018 Membership Application

Please print clearly!

Name: _____

Street: _____

City: _____ State: _____ Zip: _____

Evening Phone: _____ Day Phone: _____

Email: _____

AMA Number: _____

Amount Paid: \$ _____

2018 Dues: \$35 (Renewals should be paid by **April 1**) New ___ Renewal ___ (Check One)

Sign Here: _____ Date _____

Membership application subject to approval. AMA membership is required.

Make Checks Payable to: Western R/C Flyers

Complete this form and send with check to WRCF Treasurer:

Dean Copeland 15668 Fountain Hills Dr. Omaha, Nebraska 68118