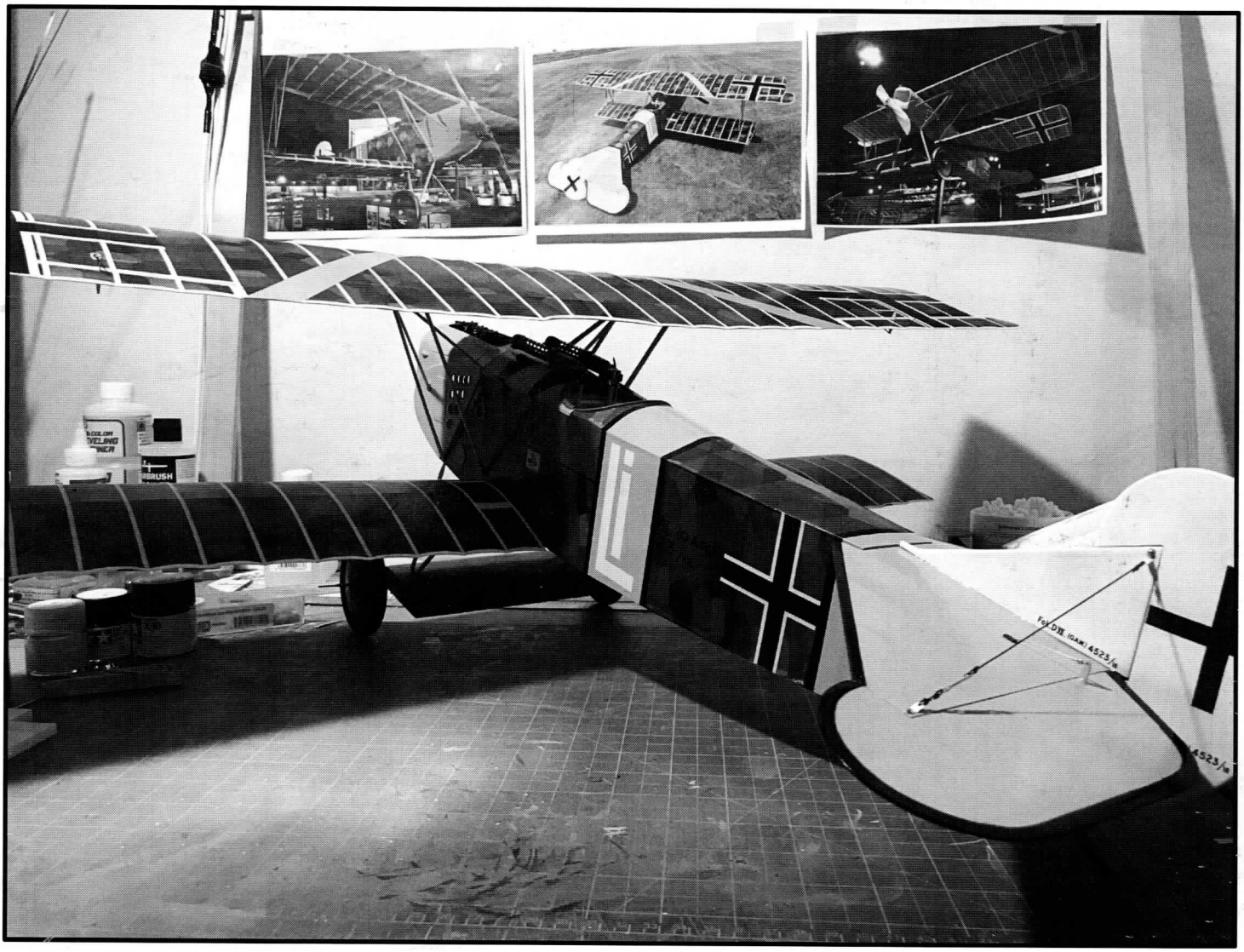
MAX FAX

The Journal of the dreaded Potomac Pursuit Squadron #6 of the Flying Aces Club

Editor: Dave Mitchell

2019-3

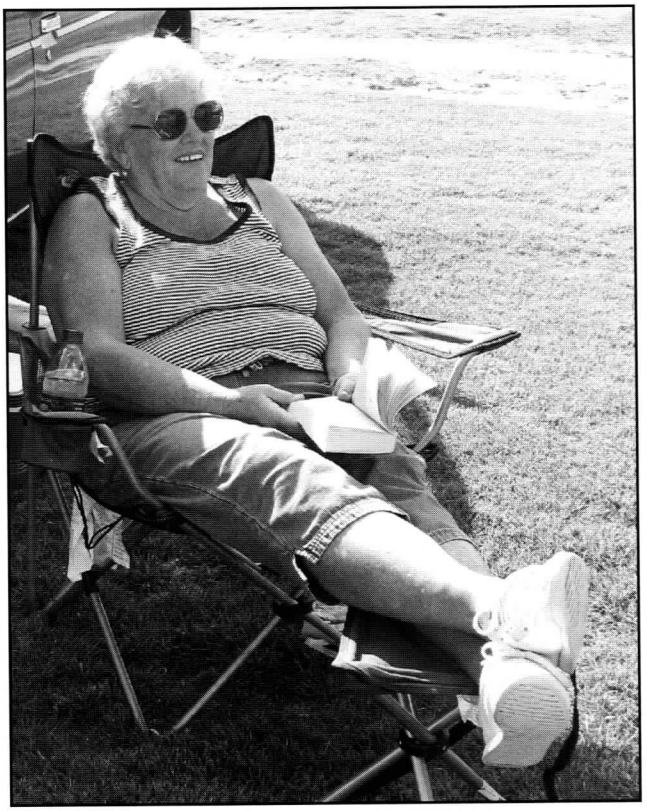


(left) Mike Moscow with one of his many exquisite Old Timer models

(right) A familiar sight--Mike and Ardath prepping for another flight

Tom Nallen I (L) and Tom Nallen II (R) in 2010 at Geneseo.

Rolfe and Nancy Gregory working together.



Shay Diebolt relaxing at one of the Kudzu meets.

Oh, I have slipped the surly bonds of earth,
And danced the skies on laughter-silvered wings;
Sunward I've climbed and joined the tumbling mirth of sun-split clouds
and done a hundred things You have not dreamed of -
wheeled and soared and swung high in the sunlit silence.
Hovering there I've chased the shouting wind along
and flung my eager craft through footless halls of air.
Up, up the long delirious burning blue
I've topped the wind-swept heights with easy grace,
where never lark, or even eagle, flew;
and, while with silent, lifting mind I've trod
the high untrespassed sanctity of space,
put out my hand and touched the face of God.

-John Gillespie Magee, Jr.

MAXFAX 2019-3

Apologies to all for this VERY late issue. I would say that life is getting in the way, but that would be a bit callous considering the unhappy news that I must share with you all. We have lost four members of our close community over the last quarter:

Mike Moscow passed away in early September, with his devoted companion Ardath Kade and his family at his side. You'd be hard pressed to find a more inspiring example of lifelong dedication to free flight than Mike. At the 2016 SAM Champs in Muncie, Mike won three out of the five events he entered, and placed second in the other two. As Don Srull wrote at the time: " We won't mention that being in his 90's didn't slow Mike down one bit, but the weather in Muncie was a serious challenge to all flyers - intermittent rain and high winds on all days. Nevertheless, Mike even made it into the 4-minute rounds in some events!! Purple Heart, please, and congratulations to one of our Maxecuter heroes." A lovely eulogy from Paul Spreiregen is on page 18 . Fair winds and thermals, Mike!

Nancy Gregory, former Luscombe Airplane employee and wife of Luscombe Chief Engineer / long time Maxecuter Rolfe Gregory, left us in late September. Grandson Victor Nazarian wrote "...she had been missing Rolfe for the last 22 years and I'm sure they are reunited and happy together again. She probably caught him and Dr. Garber, flying kites or model airplanes amongst the heavenly clouds or something."

As this issue was inching to press, we learned that **Shay Diebolt** left us on October 20th. Shay and her husband John Diebolt have been fixtures of the Maxecuter / Kudzu / CAFFA meets for as long as anyone can remember---John quietly mopping up the competition, Shay dispensing her signature sharp wit and working diligently to make sure John didn't bring home any more kits or balsa. She will be missed!

Last, but certainly not least, we mark the passing of **Tom Nallen I** in August. It's hard to even begin...let's just say that with over 40 years of high-level FAC activity, Tom Sr. made a deep, wide and lasting impression on our modeling community. We are honored to reprint his classic GeeBee Model E plan in this issue.

It's awfully tough to follow up on all this loss, but maybe a bit of modeling is just what the doctor ordered? **Don Srull** gives us a review of rubber braiding, we get a dose of much-needed humor from **George Skelly** of the Stealth Squadron, and we profile **Monique Lyons'** amazing Fokker DVII build. In honor of our back cover feature on **Mildred Doran**, we have a scaled-down reprint of **Hurst Bowers'** Buhl Sport Airsedan--not the proper mark for the "Miss Doran" aircraft, but it's the thought that counts. I round things out with a peanut version of my dime-scale Bellanca YO-50 that appeared in the FACNL a little while back. It oughta go. Use the good wood!

Dm

SUBMISSIONS - send articles, plans and high-resolution photos to Dave. Electronic submisions preferred, but I do old school too.

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MEMBERSHIP - Dues for membership in the DC MAXECUTERS are $25 per year for residents of the USA, Canada, and Mexico, and $35 for all other countries.

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Your mailing label indicates the year and month of the last issue of your current membership. An "X" in the box below your address is a reminder that your dues are due.

UPCOMING EVENTS

11/17/2019--Highland Springs Indoor meet, Highland Springs HS (near Richmond, VA)

12/7/2019--Maxecuters assist with National Cathedral School Science Olympiad invitational

Ongoing:

BYKOTA Community Center indoor flying, Fridays 6-9PM

Bauer Community Center indoor flying, Mid-day on Wednesdays during the school year

CCBC Catonsville, MD late night indoor flying, 9PM-??, January -May. 2020 Schedule TBD

Braiding - One More Time

It's Not *Really* Braiding

-Don Srull 8/2019

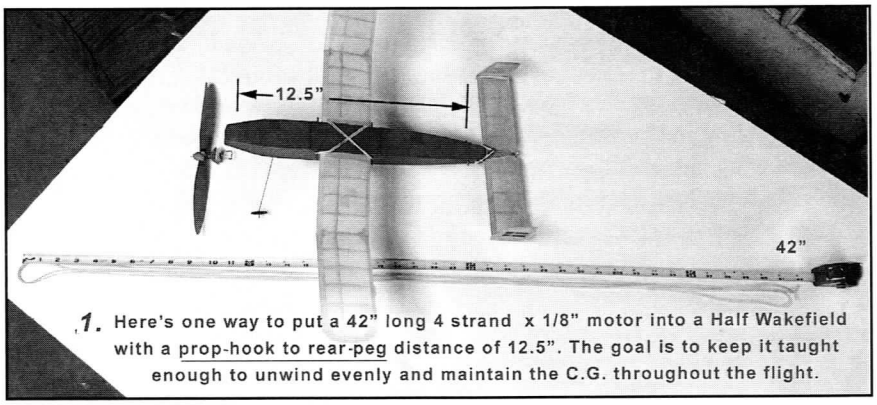
Trying to get more rubber into a model than it can reasonably hold is a never ending quest for endurance minded modelers. Obviously, the more energy you can cram into a model, and find a way to efficiently use it, the better. Several effective ways to do this have evolved over time, and are used by sport flyers and in competitive events that have no limit on the amount of rubber allowed – like FAC and many SAM events. The most common, simple method is "braiding". Even so, simple braiding can be confusing to the new-comer. Part of the reason is that some older braiding instructions recommend that braiding turns should be *opposite* the normal way the rubber motor is wound. Unfortunately, that won't work at all - braiding turns must be wound the *same* way the motor will be wound.

At the last Geneseo Non-Nats, we had some interesting bull sessions of different methods to get a bit more rubber into a model. A Half Wakefield model entry was an example of the standard, or classic, braiding method used in a relatively small model – close to the Embryo class. Getting as much rubber into a Half Wake and using it well is important since Half Wakes have an airframe weight requirement, and can't be built super light as most Embryos.

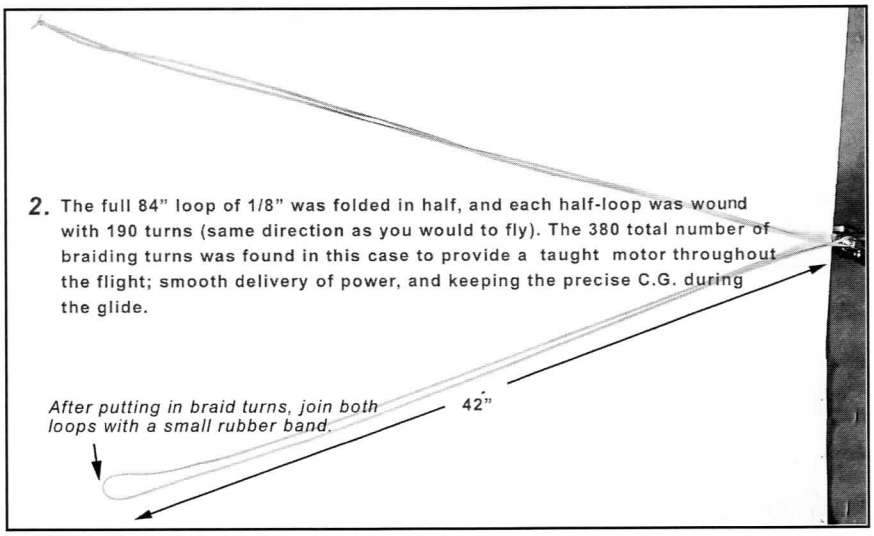
The Half Wake subject specs were:
Airframe empty weight = 28.5 grams (1 ounce)
Wing area (scale) is about 50 sq. inches
Scale prop 9" diameter
A motor of 1/3 total weight, or 14 grams was used
4 strands of 1/8" rubber , the motor length = 42"

Braiding as shown below worked well in this particular case, resulting in very long, powerful climbs, and a good glide.

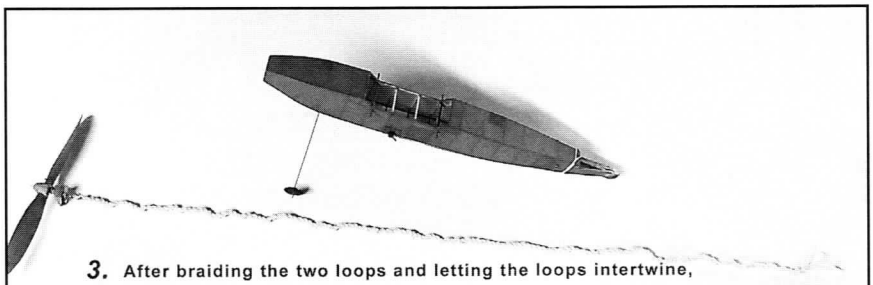
Some modelers have successfully used very long motors with no braiding at all. If the motor run is long enough, the glide does not matter. In most cases this will require a very light model, plus a sizeable fuselage interior. I experimented with using very little or no braiding with the Half Wake, but found I could not get reliable power during the last portion of the motor run due to internal fouling of the rubber – plus C.G. movement often caused instability. With motors 3 to 4 times longer than the prop hook to rear peg distance usually require considerable braiding, especially in a relatively narrow fuselage. With the braiding shown, the Half Wake easily makes consistent 2 minute plus ROG flights.



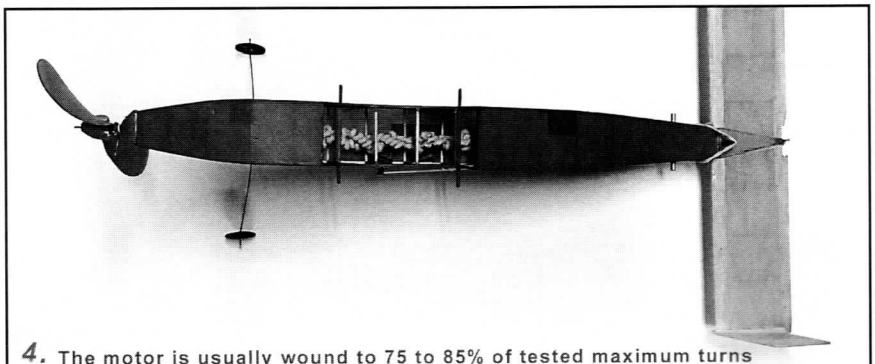
1. Here's one way to put a 42" long 4 strand x 1/8" motor into a Half Wakefield with a prop-hook to rear-peg distance of 12.5". The goal is to keep it taught enough to unwind evenly and maintain the C.G. throughout the flight.



2. The full 84" loop of 1/8" was folded in half, and each half-loop was wound with 190 turns (same direction as you would to fly). The 380 total number of braiding turns was found in this case to provide a taught motor throughout the flight; smooth delivery of power, and keeping the precise C.G. during the glide.

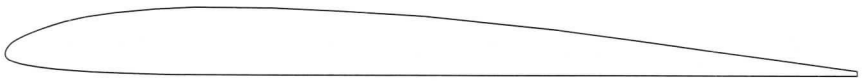


3. After braiding the two loops and letting the loops intertwine, the motor is only a bit shorter! WHAT?
But wait!! The real shrinkage only occus after the motor is wound and allowed to unwind WITHIN the model fuselage. Strange, mysterious blobs form uniformly along the unwinding motor and will shrink its length by a factor up to 4 times.



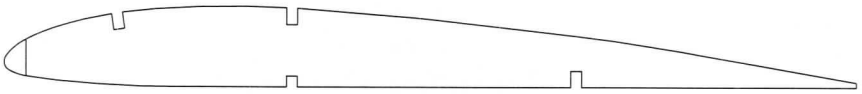
4. The motor is usually wound to 75 to 85% of tested maximum turns (between 2,200 and 2,500 turns). During and after the power phase, the motor remains relatively taught within the fuselage, maintaining the C.G.

DRELA AG37



9% DRELA / SIMPERS

9% DRELA / SIMPERS (notched for spars)

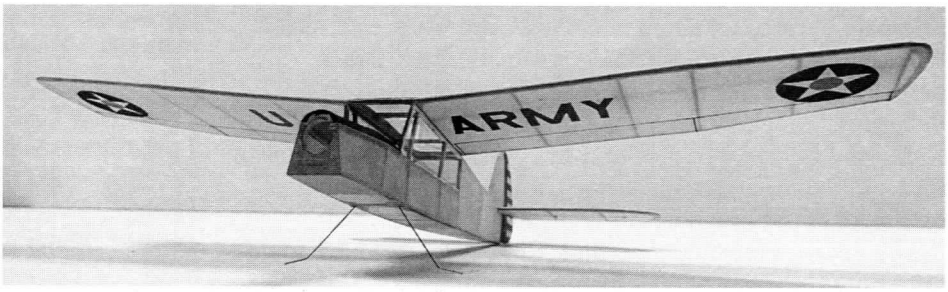


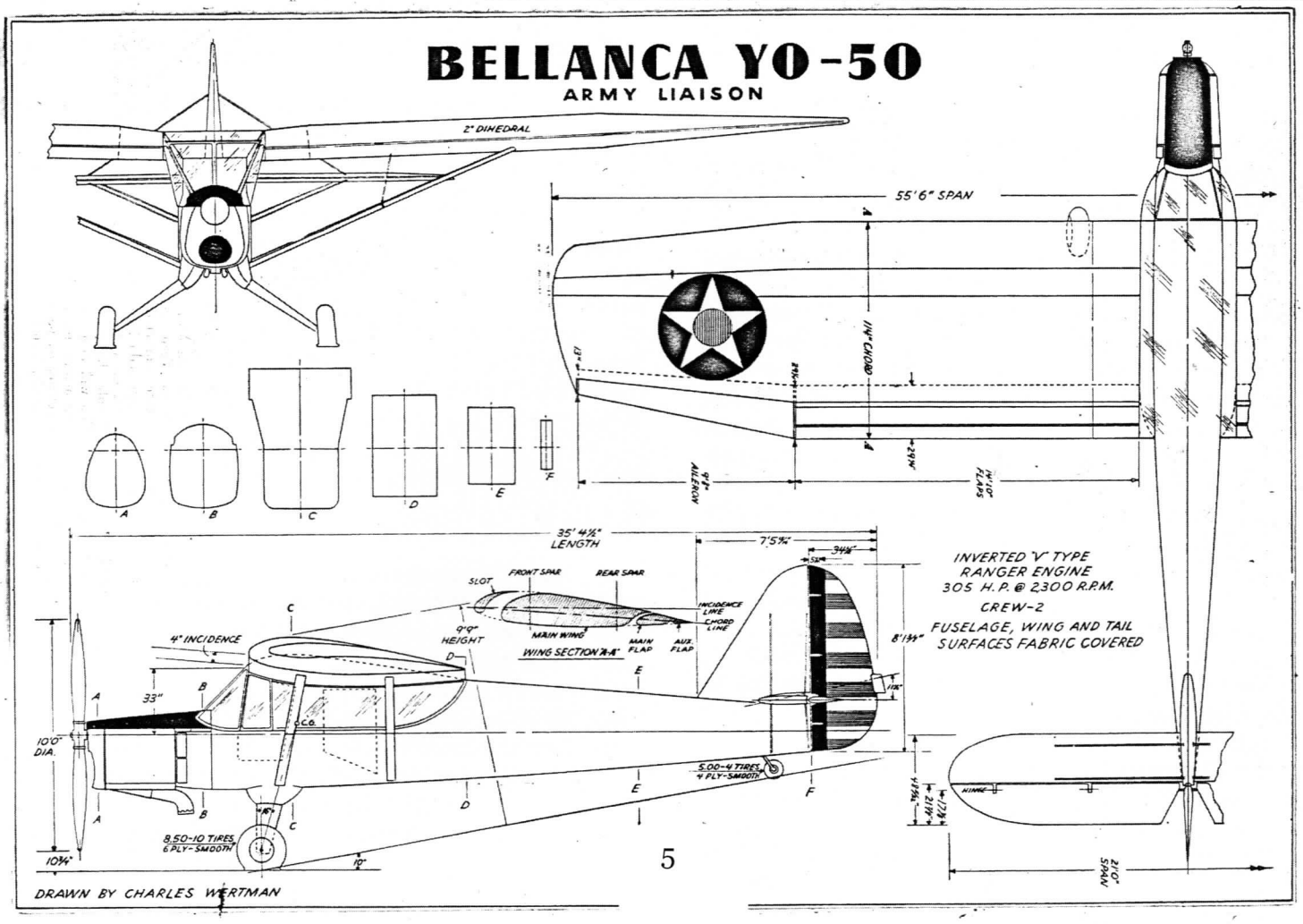
FOILED AGAIN

One of the great pleasures of the Tuesday lunches which Don organized years ago is the opportunity to learn more. To this end, I have cornered Glen for a series of personal after lunch "tutorials" on model aerodynamics and a tangible result is a recommended airfoil for scale model application. It's based on the work of Mark Drela and more specifically, the "Drela AG 37". Glen recommends thickening it slightly to 9% & increasing the trailing edge to 1/16". The result (with notches) is attached, which I drafted and which Glen has reviewed.

-Ralph Smalley

The editor's Peanut Bellanca YO-50 taking shape-not finished in time for this issue, but we're running it anyway! Covering is gray Mt. Fuji tissue from EasyBuilt, with a bit of silver Pan Pastel rubbed in. Tissue roundels and rudder stripes; airbrushed lettering.



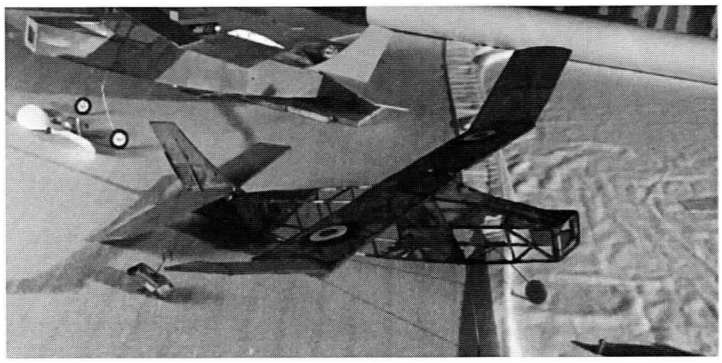


The Amazing In-Flight Rewinder

A Tale from the Beginner's Workbench

by George J. Skelly, FAC Squadron 49

reprinted from the Stealth Squadron website: www.stealthsquadron-fac49.com



As a newcomer to the esoteric mysteries of flying miniature machines made of Esaki and chopped-sticks (did this all originate in Asia?), I stood in envious awe when watching those giant dragon-fly-like indoor models circle nearly perpetually. It's like watching a ballet performed in syrup. Beautiful. Somehow, strive as I might, my own beefy Guillows fuselage jobs just couldn't muster the flight times of those gossamer high tech sticks. Until now. Thanks to my discovery of the Amazing In- flight Rewinder.

Now, I must confess that "discovery" can have many different meanings, depending on circumstances. Did Columbus actually discover America? Naturally, I didn't invent the in-flight Rewinder. OK, I pretty much stole it. I was at one of those half-day indoor contest-and-trimming sessions. I was about to launch my pristine super-light (just 2-ounces)WWII Low Wing 16" ship hoping to beat my all time high of 5 seconds, when one of those F1-C, or maybe is it F1-D?, folks got just ahead of me. This had already happened three times that morning, and each time I politely waited a good 20 or 30 minutes for that wispy poly-mylacrylic chemical contraption to even begin to lose some altitude. I decided to make good use of the time, instead of once again just standing there holding my wound prop for half the morning. While the F1pilot, who is well known, was distracted comparing his atomic chronometer to his various prior world records, I stealthily tiptoed over to his top- secret high tech laser guided computerized trimming console with all those blinking LEDs and peaked inside one of the carbon-fiber containers. And there it was: the secret of his longevity – the in-flight Rewinder! I could tell with just one glance what it was for and how the thing worked. So this is how those duration guys do it! Well, in this era of inverted scoring, shaved plastic props and leveling the landing field, it's about time we fuselage folks got a real shot at one of those Kanone things. So I think it's only fair to make this bit of arcane wizardry more widely available.

It turns out that the in-flight Rewinder is no more complicated than a Gizmo Geezer combined with the timer action of a De-Thermalizer. The principle is quite simple. Although I have misplaced my technical drawing, you can still follow along. As the main rubber motor ("A" in the drawing) unwinds, a small portion of the energy is siphoned off by the gizmo ("B") and stored in a separate mini-motor ("C") connected to a timer ("D"). Through a small gearing mechanism ("E"), that mini- motor ("C") is slowly wound as the main motor ("A") unwinds. Then, when the main motor ("A") has run its initial course, the timer ("D") kicks in, the rewinder releases its stored energy to – yes – rewind the main motor ("A"), and the whole shebang starts over again. The entire rewinder mechanism weighs less than 15 grams, which you probably need to add as nose weight anyway, and fits inside even a peanut so inconspicuously that scale judges haven't seemed to notice how often they are in use.

Just about now all the theoretical physicists on the field (I do see one) will object that such a mechanism would allow for perpetual motion, and therefore must be impossible. But we're only talking maybe 20 or 30-minute flights. Nothing perpetual about it. And just like everything else in our sport, even ships mounted with Rewinders are subject to the second law of thermal-dynamics – which posits that OOS flights are more likely on summer days on a hot field than indoors.

I've carefully checked the FAC rules, and nothing prohibits the use of the Rewinder in FAC contests. Because the gears turn in different directions, the teeth on the clockwise gear get subtracted from those on the counter-clockwise gear, so the gear ratio actually nets out to the permitted1:1. And the rest of the mechanism is no more controversial than using dual nacelles (whatever they are), a pusher prop (for flying backwards), or a Nason Clutch (which I hear works with automatic transmissions).

The secondary rubber in the Rewinder works better if it is stripped to a nonstandard width, probably metric. That is one reason certain well-known gossamer-stick flyers get such amazing times: they actually own rubber strippers for making the secondary motors for their rewinders. If you've ever tried to strip some 1.5 mm rubber from that good-ole hunk of dried up 1/4" that came in the kit using an exacto knife, you know what I'm talking about.

Just as with anything else in this pursuit, there are ins and outs, and experience leads to refinements. My first attempts at whittling the gearing out of balsa weren't pretty, so now I just use Lego parts. And if you overwind your main motor without using a blast tube, the interaction with the Rewinder has a way of spectacularly compounding the catastrophe. I have had to disguise several models as Bleriots, rather than undertake a complete re-cover-y. But I've kept at it, and I've been getting some pretty good times flying with the Rewinder on a tiny urban 'field' (it happens to be over some of those hot-air grates above a subway line, but you do get used to the noise).

And I'm not the only one. A couple months ago at an outdoor meet in Connecticut, a certain progidi-ous flyer was clocking yet another of his routine 10 minute flights with an embryo that otherwise looked – from the outside – like any other innocent newborn. But I knew what was up, and he knew. His ship eventually returned to within binocular range, and later landed oh so nonchalantly on the field. I walked up to him, gave him the look we cognoscenti give one another, and knowingly whispered to him: "rewinder, right?" He only smiled and nodded, but that was all I needed to see.

Definitely: rewinder.

FOKKER DVII MASTER BUILD

"The Plot Thins.....

...very thins." Thus wrote **Monique "Monz" Lyons** earlier this year, as she shared photos of her superb 34" Fokker DVII project. Monz began the build back in the late spring of 2017, with the intention of entering it in the British Indoor Open Scale class. As the first few photos began to filter in, it was clear this was not going to be your average build.
Aside from the details--oh, the details--and the clever construction, there was the color and markings. Vibrant colors, and LINEN TEXTURE! (I must here apologize for the black and white photos accompanying this article. Trust me, the colors are brilliant). How did she do it? Monz wrote:

"It's laser printed clear decal transfers :).....

...When I did the Herr DVII, I laser printed the tissue and after sealing it went really transparent and lost a lot of the colour saturation. I didn't want that to happen with this Fokker, so after covering with esaki tissue with two coats of Tamiya satin clear, I applied decals over that. Keeps the saturation, tissue is sealed so no sagging and it has the look of fabric. All for a 5% weight increase.

The lozenge pattern is laser printed on clear decal paper and applied rib bay by rib bay; the white rib tapes are white decal sheet cut into strips and applied one by one top and bottom, and the crosses are laser printed white decal sheet applied over the lozenge decals. All this over esaki primed with a few coats of thinned Tamiya satin clear.

For UK scale models the finish is part of the static judging; good finishes come with weight, and a general rule of thumb is you can double the weight from covered to finished. With only a 5% increase across most of the model I'm gonna stay well under my initial weight target of sub 200g flying. The only paint going on will be the pink fuselage band, a bit of green and blue on the top of the fus and the white rudder. The rest is all decals!"

I had more questions. Did she use any kind of setting solvent, to help the decals suck down onto the tissue?

" I sprayed Tamiya acrylic on the decals, no setting solvent with this, but if I had to do it again, I would use some. There is some lifting here and there, especially of the white strips, but I think a light coat of some Tamiya over the top will set it all nicely.

I've sprayed only Tamiya on this thing through an H&S Infinity airbrush. It was a new airbrush to me so took some getting used to, but once hacked it sprays better than anything I've used before--which were mostly cheap chinese copies. I first sprayed using X20A Tamiya thinner and did have some clogging issues---I put this down more down to my leaking compressor though. I tried using Mr Colour self leveling thinners instead and that mixed about 60/40 paint/ thinners sprays like you wouldn't believe!
For masking I use Tamiya tape, 'de-tacked' a few times on my skin. Less initial bite and gentler when peeling off.

When spraying the less opaque colours like white or red, I now use a very light coat of Tamiya XF19 Sky grey as a base/ primer. It helps use less coats of the top colour to get opacity. But that's the look I go for, if its transparency you're after, then just the white / red.

Weight was 118.7g after covering and doping everything, decaling, painting and then sealing everything again. Lots of fiddly little bits going onto this thing, least of which was hand painting the stencils with oils... after adding all the extra bits like engine, guns supports, carbon for the struts etc. we're at 146.3g. So an increase of 27.6g for all those things--23.25%. Not bad for 34" of detailed Fokker!
My balsa/carbon cabanes have thin aluminium built into the ends with a tiny hole. I'll use a cut down pin pushed through both with a drop of CA to secure. Scale and stronger than just gluing to the wing. The wing ali points are sunk a good 1/8th" into hard points built into the wing. The other end is ali tube over 1mm carbon inside the balsa which is CF thread wrapped and CA'd with a piece of wire going into ali tube in hard points in the fus. Same with the undercarriage. "

But how does it fly? Note that British indoor events have very different requirements from your typical FAC event; Where FAC tends to place flight times at a premium, the British indoor scale meets prefer to see a realistic flight profile, coupled with a minimum flight time of 15 seconds. Despite the DVII being intended for indoor competition, Monz could not resist a few outdoor tosses on a calm day:

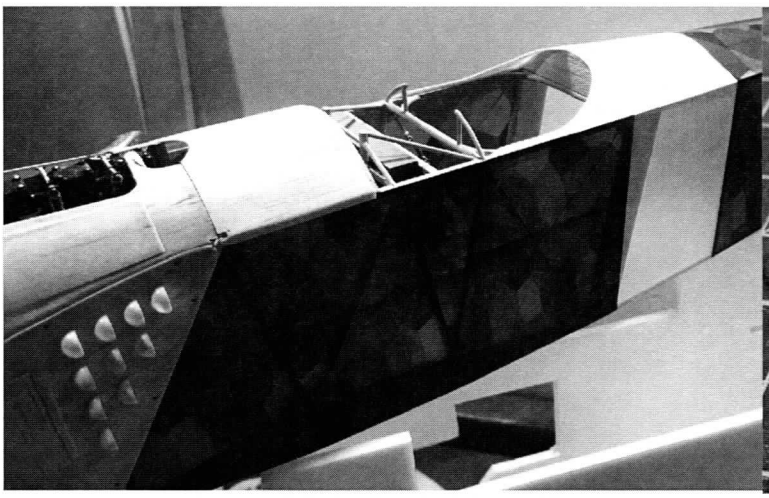
"I spent the most epic weekend at the BMFA (British Model Flying Association) National Centre for an F3K workshop and with the weather what it was decided to take the Fokker along. Just in case.

Yesterday evening after the breeze died down I put a motor in and with a few hand winds headed for the long short grass. To say I was tentative would be an understatement. I waited for a lull and then a gentle toss, and...it flew!

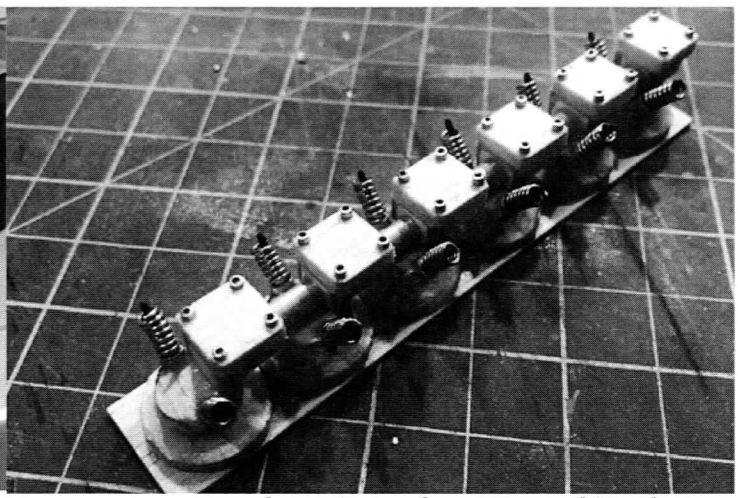
Buoyed by this first hop, I added some more winds, just about 150 and let it go again. It pulled slightly left, but still a good climb and transition. After these two test hops, the weakness in the landing gear attachments to the fuselage became apparent, but I just so happened to have some CA in my pocket and after quickly gluing the struts back together I wound it to 200 and added some right rudder and off it went in a nice gentle right hand circuit. Landing again took the gear off, but I was expecting that. More CA and the final flight was 240 winds with a bit less right rudder. I decided to call it a day and go have a beer.

I need to make the gear knock-off-able and then add a longer motor. I used 8 strands of 3/16th just over prop to hook for these initial flights, so will go with the same but 4 x that and braided. I am so chuffed that this thing flies! I used scale incidence and decalage, eye balled and hand drilled the thrustlines. If it looks right, it'll fly, right? :)"

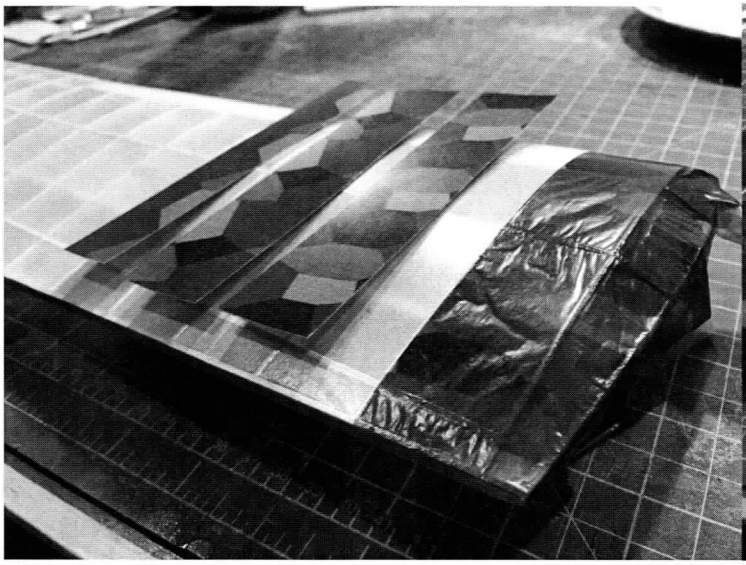
IT LOOKS RIGHT, MONZ!!!



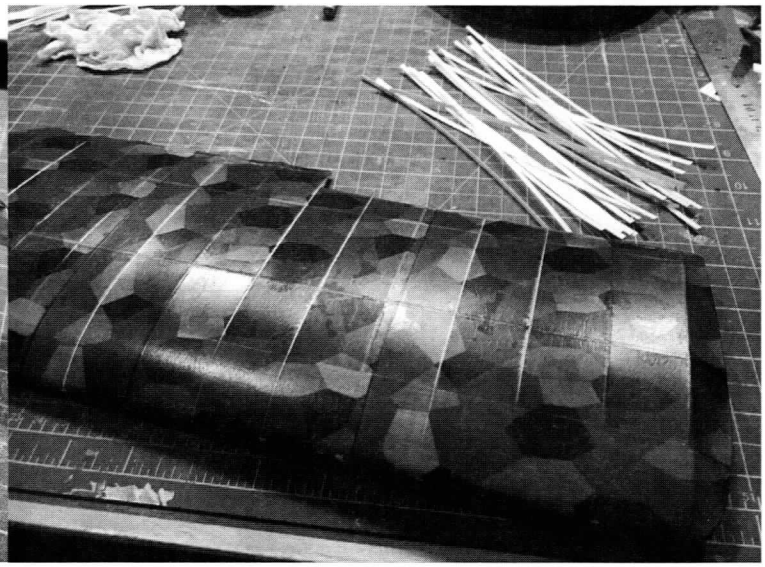
The beauty of Monique Lyon's DVII is more than skin deep. In this early construction shot, note the cowling louvers, "welded tube steel" cockpit structure, and turnbuckled truss bracing.



Not your average Mercedes engine mock up. Even at this early stage of construction, you half expect to see the valves lift as the prop unwinds....

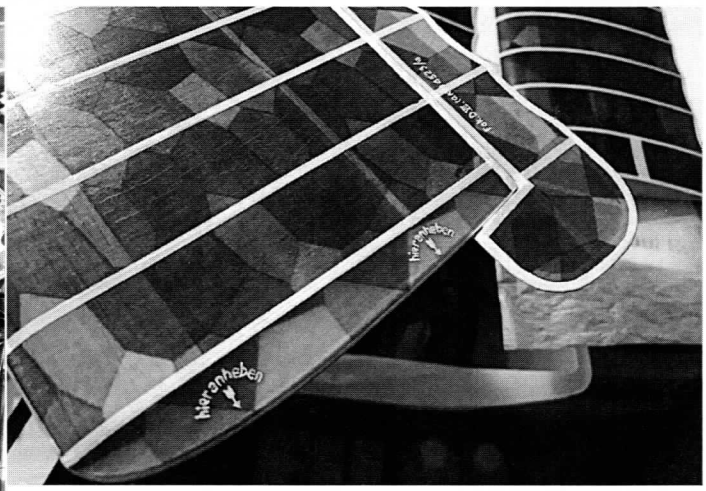


The process begins. Each rib bay is covered with a separate piece of laser-printed lozenge pattern decal paper. Though no settling solvent was used on this project, Monz reports she would consider using it in the future to help the decals lay flat and adhere better.



Main lozenge decals in place. Rib tape strips are in the background, cut from white decal paper and ready to be applied individually.

Major sub-assemblies completed! What a show! The cowl, fuselage band and tailfeathers await their coats of airbrushed color finish.



Lest you you imagine that Monz over-relies on computer graphics, that's hand-stenciled lettering. Note the linen texture evident in the decals.

2019 October Hurricane Results

Carolina Area Free Flight Association – Kudzu Flying Corps Squadron 13

Raeford NC October 19-20 2019

FAC Combined Racers Mass Launch (2 Rounds – 4 Contestants)

Contestant	Plane	Flt 1	Flt 2
Sky Mayo			
Jim Kelly	Mr. Smoothie	3	2
Roy Courtney	Comper Swift	1	3
Stew Meyers	Rider R4	4	

FAC WW II Mass Launch (3 Rounds – 5 Contestants)

Contestant	Plane	Flt 1	Flt 2	Flt 3
Sky Mayo	EKW C-3603	2	2	1
Duncan McBride	F6F Hellcat	1	1	2
Claude Powell	FW-190	3	3	3
Dan Driscoll	Fiat G-50	4	4	
Stew Meyers	Fiat G-50	5		

FAC Blue Ridge Special (4 Contestants)

Contestant	Flt 1	Flt 2	Flt 3	Total
Jimmy Jordan	120	120		240
Kit Bays	64	64	61	189
Stew Meyers	64			64
Jim Kelly	25	29		54

It turned out to be a rather hectic contest. John Diebolt was the CD but could not attend due to illness in the family. I filled in as CD and with the help of Sky Mayo, doing the scale judging, we had a contest. The weather did not cooperate with rain starting, as forecast, Saturday afternoon and continued into Sunday. Knowing that the rain was coming, we accelerated the two day contest into a 3/4 day event flying as many events as we could. Some nice lift developed shortly before the rain started enabling a few Max flights to be scored. As far as I know, Duncan McBride's P-30 was the only fly-away of the contest. Based upon all the smiling faces and friendly banter between the contestants, everyone had a good time. I just wish it could have lasted for two days!

Jimmy Jordan

FAC Two Bits + 1 (4 Contestants)

Contestant	Plane	Flt 1	Flt 2	Flt3	Total
Dan Driscoll	AYA #4	84	85	95	264
Duncan McBride	Jr. Commercial	82	83	71	236
Sky Mayo	FA Moth	55	81	44	180
Roy Courtney	Jimmy Allen	49	44	58	151

FAC Dime Scale (4 Contestants)

Contestant	Plane	Flt 1	Flt 2	Flt 3	Bonus	Total
Roy Courtney	Cessna C-34	47	42	50	1	140
Duncan McBride	Fokker D8	34	41	50	4	129
Stew Meyers	Fokker D7	31	36	41	15	123
Claude Powell	ME-109	39	29	41	12	121

FAC Peanut (4 Contestants)

Contestant	Plane	Flt 1	Flt 2	Flt 3	Factored	Const	Mark	Work	Bonus	Total
Claude Powell	Rearwin120	46	92	82.5	27	15	10	0	134.5	
Roy Courtney	Cougar	39	20	74	67	28	19	10	0	124
Duncan McBride	F7F Tigercat	45	42	35	45	20	10	9	30	114
Sky Mayo	Cougar	38	54	31	54	28	19	10	0	111

FAC Embryo (4 Contestants)

Contestant	Plane	Flt 1	Flt 2	Flt 3	Bonus	Total
Matthew Canady	Big Cat	120	100	95	9	324
Dan Driscoll	NIT II	86	75	97	9	267
Roy Courtney	Gonzo	45	86	62	9	202
Dave Kershner	Embryo	23	22	26	9	80

P-30 (3 Contestants)

Contestant	Plane	Flt 1	Flt 2	Flt 3	Total
Dan Driscoll		96	62	101	259
Duncan McBride		69	120		189
Stew Meyers		55			55

NOTE: events with fewer than three contestants are not listed

Mike Moskow

My name is Paul Spreiregen and I'm a model airplane buddy of Mike's. But more, a friend. My wife Rose-Helene and I have known him for maybe twenty-five years. That's just part of his long life, but more than enough to have been enriched by this most remarkable person.

As Mike slowly left us in these last days many recollections were offered by those who attended him. Among them, unavoidably, were his experiences as a paratrooper in World War II. That's a part of his life of which he seldom spoke but, when he did, kept brief, giving clear signals that he didn't care to go there. The last thing I want to do in speaking of Mike is to dishonor that trait. But that reticence to discuss his harrowing wartime experiences says much about the man.

There are many reasons a combat veteran declines to talk about his experiences – a need to put them behind, the feeling that no one who hasn't experience combat can't fully or even partially understand. I think for Mike it was something more revealing - that he didn't want that define him, to have others see that part of him as his prime part, to prevent that part of him from coloring his relations with those close to him. I believe that it was because there was much more to him and much more of himself that he wanted to project.

Others, I'm sure, will describe his family life and maybe his professional life, and that has to be rich telling indeed. But the part of him I'd like to mention was his model airplanes. Adult toys one has to admit. But here again for Mike something more.

The type of models Mike built and flew were, in the model airplane world, the difference between prose and poetry, in his case poetry. They were a parallel life in which he subjected himself to the voluntary duress of taking on challenges of great complexity. That hobby, like many others, is one that a fervent soul needs as a balance to the everyday and its equally complex demands. It's a sublimation of the whole person. His choice of hobby was one that elated the soul – a model airplane high in the sky, the sun glowing through it, its beauty and grace against the clouds.

That part of Mike was likely obscured by some rougher edges, and we're forgiven if we recall them, his awful jokes included. For me that rougher part of Mike stood as an affront to the pretentious, the phony, the ridiculous. The stuff of foolishness. In Mike this manifested itself in a directness of expression, an unmistakable and purposeful bluntness. Behind them was integrity. The real man was genuine and full.

I hope I speak for all of Mike's flying buddies in their admiration for him. Friends are a measure of a person, so I must end with acknowledging a friend of Mike's in full, and in these last years even more – Ardath.

I regret that I don't know Mike's children Laura, Steve and Bruce and their families anywhere near as well as I know Ardath, so I'm unable to speak in proper tribute to all of them for their part in Mike's life. His surely devoted and loving family aside for a moment, and along with the many words of tribute for Mike, among those that speak most highly of him was that Ardath was his friend.
She no doubt saw in him the qualities for which we will long hold him in our hearts. She was not alone.

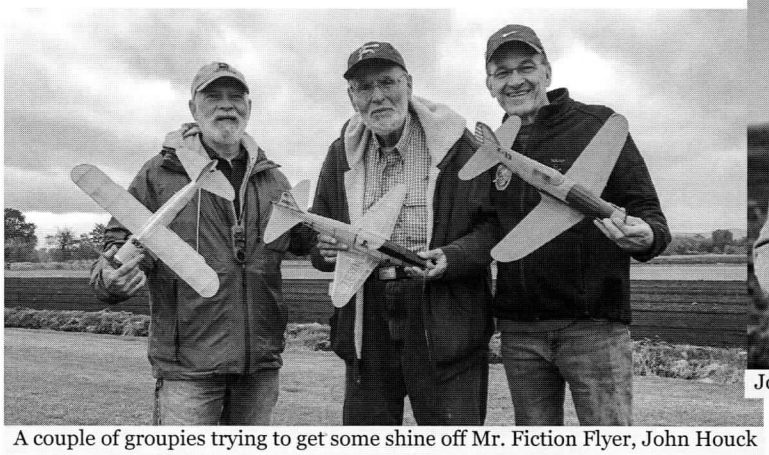
May Mike's memory forever serve as a blessing for us all.

Paul Spreiregen
September 10, 2019

Annapolis Maryland

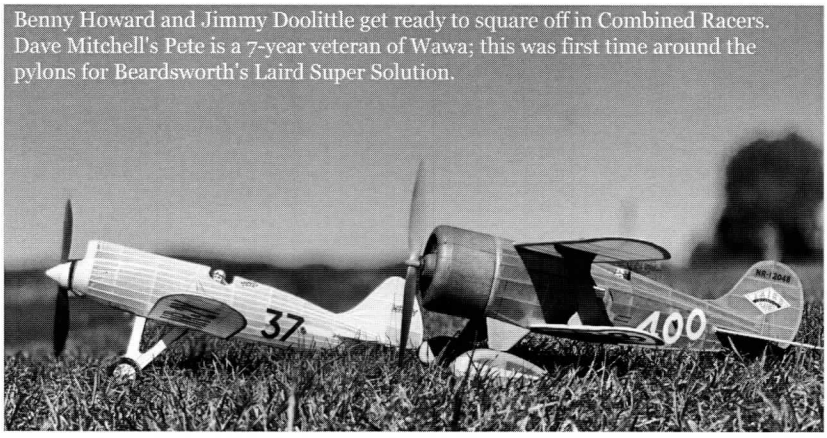
Doug Beardsworth lets loose the Ansaldo SV5a

The perils of Wawa--Hallman's Babcock flirts with the murk

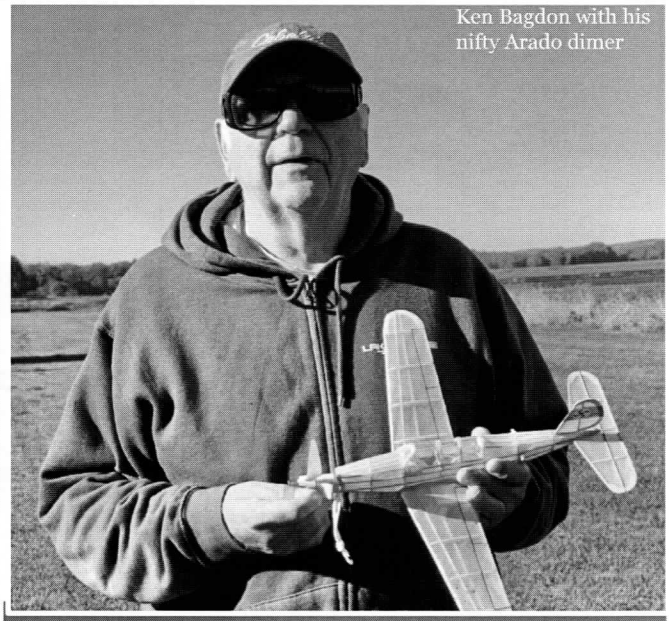


A couple of groupies trying to get some shine off Mr. Fiction Flyer, John Houck

John Ernst and Tom Nallen II share a laugh. It was a great day for flying!

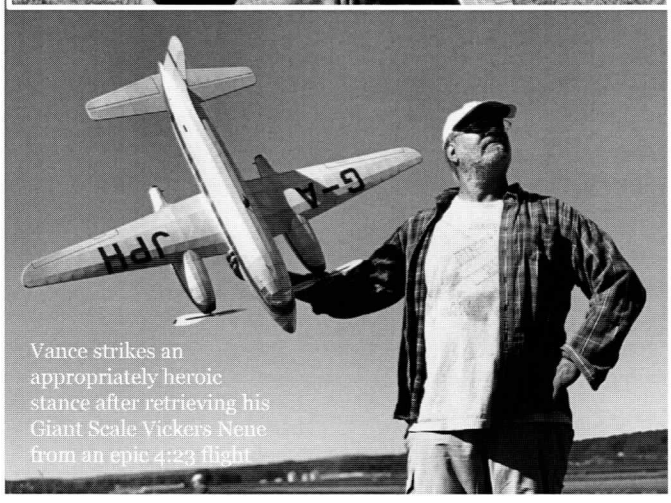


Benny Howard and Jimmy Doolittle get ready to square off in Combined Racers. Dave Mitchell's Pete is a 7-year veteran of Wawa; this was first time around the pylons for Beardsworth's Laird Super Solution.



Ken Bagdon with his nifty Arado dimer

Robert Martin had a pair of neat FROG sport designs going at the meet. Here, he winds his Minx



Vance strikes an appropriately heroic stance after retrieving his Giant Scale Vickers Neue from an epic 4:23 flight

D.C. MAXECUTERS
% Dave Mitchell
230 Walnut St. NW
Washington, DC 20012

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Cover images:

FRONT: Monique Lyons' outstanding Fokker DVII awaits assignment. In the background are scale reference photos of a modern-day reproduction of Rudolph Stark's lilac-trimmed DVII, which Stark flew with Jasta 35b. Monique used decal paper to create the lozenge pattern on this 34" model. Details inside...

RIGHT: Mildred Doran gained fame not because of her daring exploits as a pilot, but for her courage as a passenger. Doran was the only woman to participate in the ill-fated Dole Air Race of 1927, riding along with pilot John "Auggy" Pedlar and navigator Vilas Knope in the Buhl CA5 Airsedan *Miss Doran* as they made their bid to become the first fixed-wing aircraft to fly from Oakland, CA to Honolulu, Hawaii. In response to suggestions that it was not appropriate for women to participate in such dangerous endeavors, Doran stated that "...a woman should fly just as easily as a man...women certainly have the courage and tenacity required for long flights." On the hazards of the long flight over water, she told the Flint Journal: "Life is nothing but a chance." When an aborted first sortie brought the aircraft back to Oakland and provided her an opportunity to reconsider, Doran refused to back out. She and her fellow crewmembers vanished without a trace over the Pacific on their second attempt.

LEADING AND TRAILING EDGES 1/16 X 1/8

DIHEDRAL BREAKS AT RIBS W2

BLACK PINSTRIPE

GREEN

DIHEDRAL 1 1/8 INCH UNDER EACH WINGTIP

1/16 X 1/8 LANDING GEAR MOUNTS ALONG LOWER EDGE OF W3

PAPER PUNCH TISSUE DISKS REINFORCE RIGGING POINTS

T1

YELLOW

T2

W5 W4 W3 W2 W1 W2

STRUTS MOUNT TO RIB W3

UPPER STUB SPARS TERMINATE AT RIB W3

F2

BOND PAPER FILLETS

T3

F1 F1

NC72V

C

A

FORMERS A,B AND C ARE 1/8 SHEET

D

3/32 SHEET

B

E

1/32 PLY

T1

1/32 SCRAP

T2 W7 W6

ROLLED PAPER TUBES CEMENTED TO RIBS FORM RIGGING POINTS

T3

WING RIBS, WING TIP AND STAB PARTS OF 1/16 SHEET

W1 W2 W2 W3 W3

T3 T3 S1 S2

W4 W4 W5 W5 W6 W6 W7 W7

S4 S4

T2 T2 T1 T1

S3 S3

F1 F1 F2 F2

WING FILLET FORMERS F1, F2 OF 1/32 SHEET

S1 S2

RIGGING POINTS

S3 S3

S4 S4

BALSA EXHAUST STACKS GLUED INTO HOLES DRILLED INTO FORMER E

NC72V

REGISTRATION NUMBER ALSO APPEARS UNDER LEFT WING PANEL.

8

13

1931

GEE BEE MODEL E

WARNER POWERED SPORTSTER

18 7/8 INCH WINGSPAN

SHEET 2 OF 2

CEMENT ONE LG TO EACH SIDE OF FRAME TO FORM LANDING GEAR LEG. GLUE LEG INTO WP. GLUE ONE WP1 TO EACH SIDE OF WP. GLUE ONE WP2 TO EACH SIDE OF WP1. SAND TO STREAMLINE SHAPE.

FRAME OF 1/16 X 1/8
MAKE 2

WP
MAKE 2 OF 1/8

LG
CUT 4 OF 1/32
SHEET BALSA
GRAIN

WP1
MAKE 4 OF SOFT 1/8 SHEET

DOTTED LINE
SHOWS POSITION
OF WP2

WP2
MAKE 4 OF SOFT 1/8 SHEET

WHEEL PANTS SANDED TO THIS SHAPE

1
1B
1A
1B
5
2
2A
6
3
4
7
8
R1
GAS CAP AND FUEL
GAUGE MADE FROM
SCRAP BALSA
WINDSHIELD PATTERN
R4
R2

WS
WS
R3
BOND PAPER
COCKPIT ENCLOSURE

TAIL POST 1/16 X 1/8.
CUT AWAY TO ACCEPT
STABILIZER AFTER ALL
UPPER FUSELAGE STRINGERS
ARE IN PLACE

FABRICATE CYLINDERS OF
PAPER TUBES AND SCRAP
BALSA.

3 LAMINATIONS OF 1/8

NOSE PLUG DETAIL

NOSE BLOCK/CRANKCASE
LAMINATED OF 1/8 SHEET
GLUED TO FORMER E

A C E
1B
B D
SAND RING COWL TO
SHAPE INSIDE AND OUT

INSTRUMENT PANEL
ATTACHES TO FORMER 5

FUSELAGE, INCLUDING COWLING,
IS GREEN FORWARD OF COLOR
LINE, YELLOW AFT, SEPARATED
BY BLACK PINSTRIPE.

NC72V WAS GREEN AND YELLOW.
THE GEE BEE LOGO ON THE FIN
AND SCRIPT ON RUDDER WERE
BLACK. REGISTRATION NUMBERS
WERE GREEN W/BLACK PINSTRIPE.

ALTERNATE
FIN AND RUDDER
OUTLINE LAMINATED
OF 2 STRIPS OF
1/16 X 1/32

R2
R1
R3
R4
NC72V
Manufactured By
Granville Bros. Aircraft
Inc.
Springfield Airport
Springfield, Mass.

WING STRUTS 1/16 X 1/8
SANDED TO STREAMLINE SECTION

MAKE 4

FAIRING PLATE
MAKE 2 OF 1/32
FP
FP

SHEET FILL THIS AREA
FOR RIGGING ATTACH

FP

1
2
3
4
5
6
7
8
1A
2A
WS
X
X
X

STRUTS ATTACH
TO RIB W3

USE SCRAP FOR
RIGGING ANCHORS

TAILPOST

1/20 SIDE STRINGER
ADDED TO FINISHED
FUSELAGE FRAMEWORK

BOND PAPER GUSSET
GLUED INSIDE JOINT
AT EACH END OF WS

F1

X = 1/16 SQUARE
FUSELAGE CROSSPIECE

TAILSKID OF
LIGHT MUSIC WIRE

FORWARD WING STRUT
IS GREEN, AFT STRUT YELLOW

TWO SETS OF WIRES. SEE
WHEELPANT SIDE VIEW FOR
SPACING.

CHAMFER LANDING
GEAR LEGS FOR
PRECISE FIT TO
BOTTOM OF WING

WHEELPANT GREEN
FORWARD OF TRIM LINE

WHEEL DIAMETER
1 1/16 INCH

REF: HAFFKE – GEE BEE, THE REAL STORY

1931
GEE BEE MODEL E
WARNER POWERED SPORTSTER
18 7/8 INCH WINGSPAN

SHEET 1 OF 2

Tom Nallen 1996

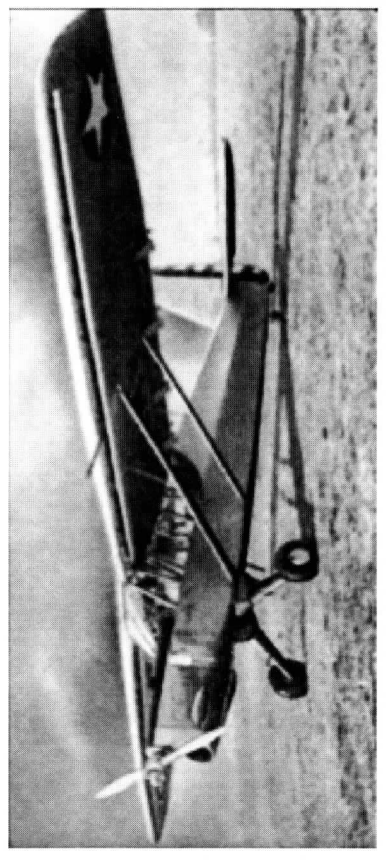
MODEL IS ALL BALSA UNLESS OTHERWISE NOTED.

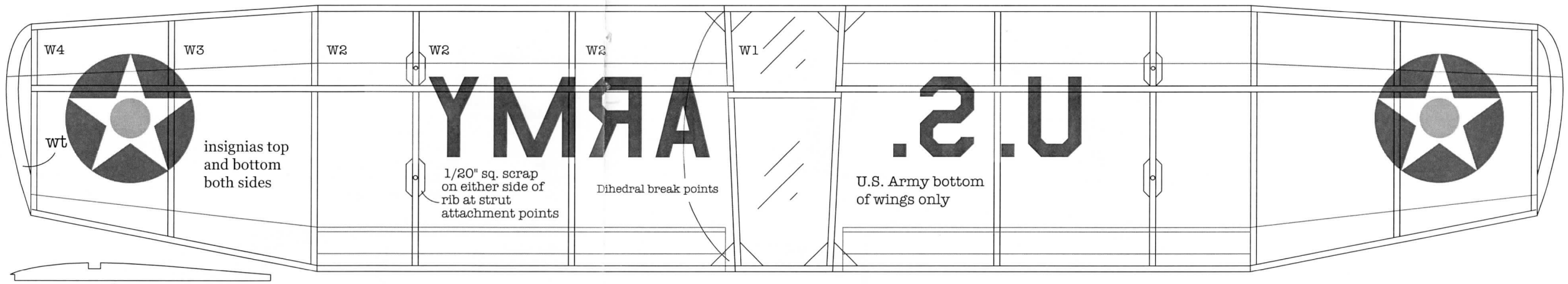
DIMENSIONS ARE IN INCHES.

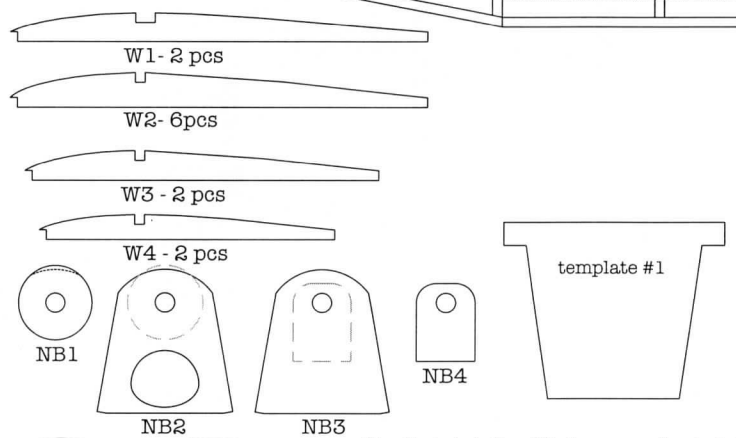
This model was first designed and built as a dime scale (plans in FACNL #299) It flew pretty much off the board, and didn't stick around for long once I started flying it outdoors. Tom Hallman was running a High Wing Peanut event at the fall 2019 Wawayanda meet, so I thought I'd tweak the plans a bit and reimagine the bird as a peanut. I didn't manage to get it finished in time for that, but I think it has great promise. The thrust line is very high; I did everything I could to keep the upper nose clear of rubber-snagging structure, and the wing is set at a fairly high positive incidence to try and minimize the amount of downthrust needed. It worked out pretty well with the Dime Scale version. Try to keep the weight down so you don't have to stick a great fat wad of rubber in it

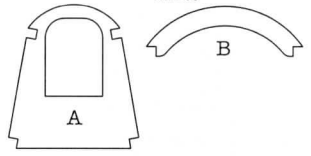
The YO-50 was Bellanca's entry in a 1940 competition held by the US Army for an observation aircraft. Three were produced; the YO-50 did not win the contract, and no further examples were built. There are just a few photos circulating on the internet. These reveal a rather complicated cabin structure and wing, with full-length leading edge slots and multiple robust flap hinges dangling about on the underside of the wing . As such, our little model is somewhat simplified; if you're a glutton for punishment, you *could* go whole hog, but that would be better left to a larger model I think.

All three of the aircraft vying for the contract were complex aircraft. The Stinson YO-49 "Vigilant" won the competition over the YO-50 and the Ryan YO-51 "Dragonfly", but the winds of change would ultimately favor simpler designs like the L-4 Grasshopper. The Stinson YO-49 was phased out after 1942; the YO-50 and the YO-51 faded into might-have-been, undeveloped prototype obscurity. *Just* the sort of subjects we like, eh?









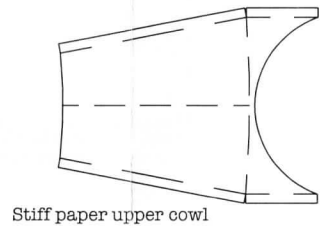
Center longeron angles in toward the nose more sharply than the lower longeron. See front view.

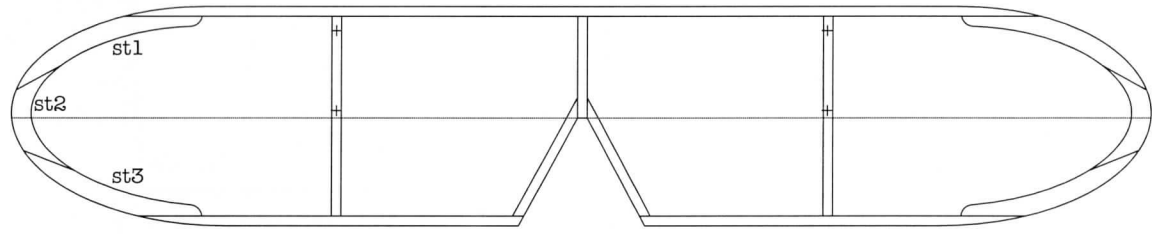
Starting at station "F", the upper fuselage longerons angle out progressively a total of about 3/32" each side.

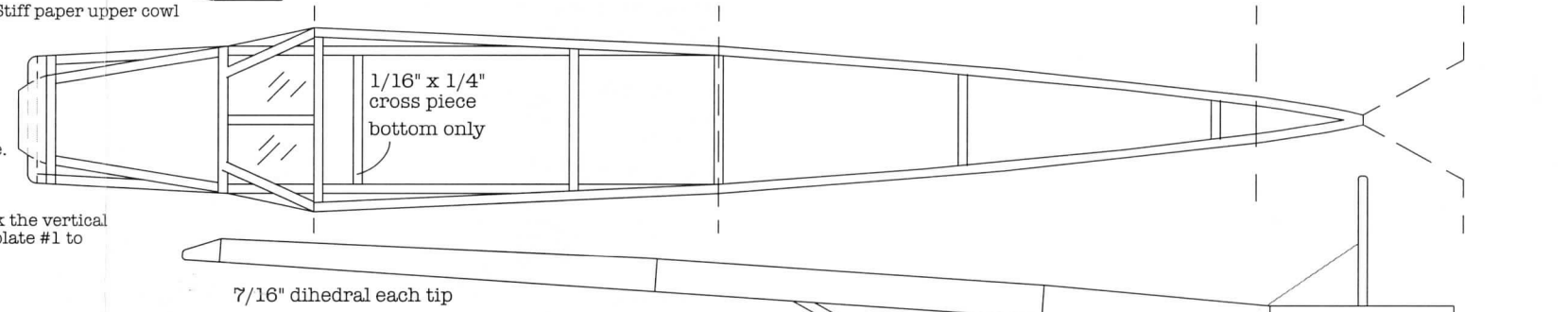
Leave the upper cross-pieces at stations "C" and "E" out until the angles have been set as per following:

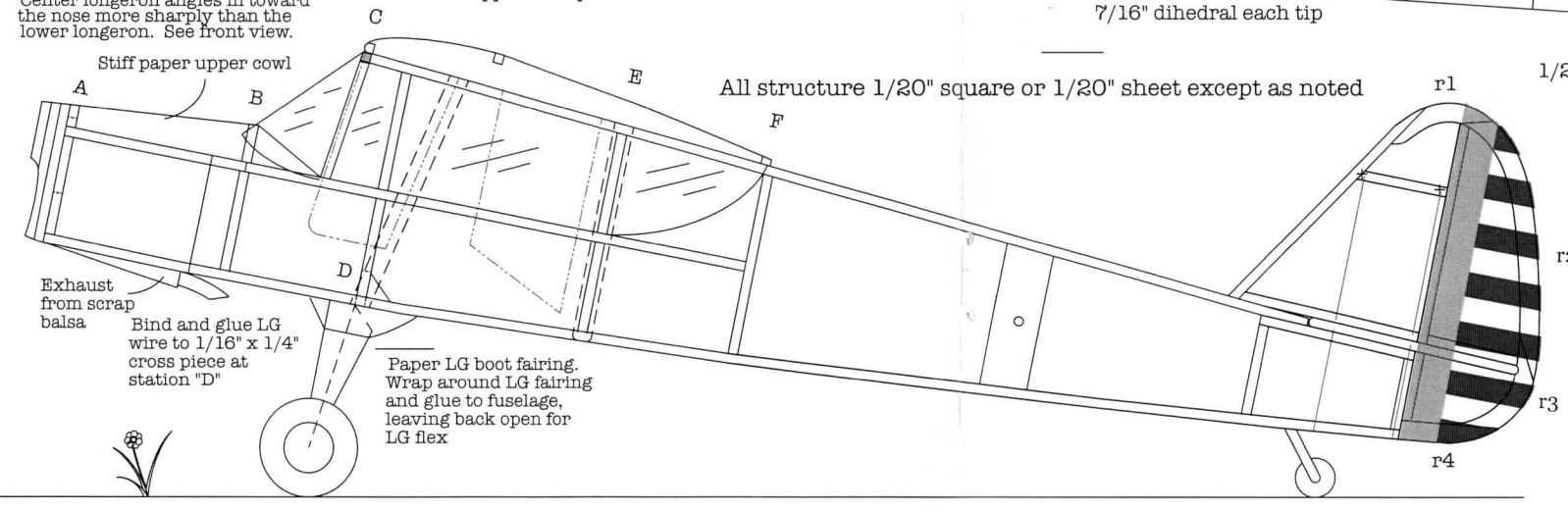
After fuselage has been framed up square, gently crack the vertical fuselage members above the center longeron, use template #1 to set the angle at station "C", and reglue the joints.

Install the upper cross pieces at stations "C" and "E".

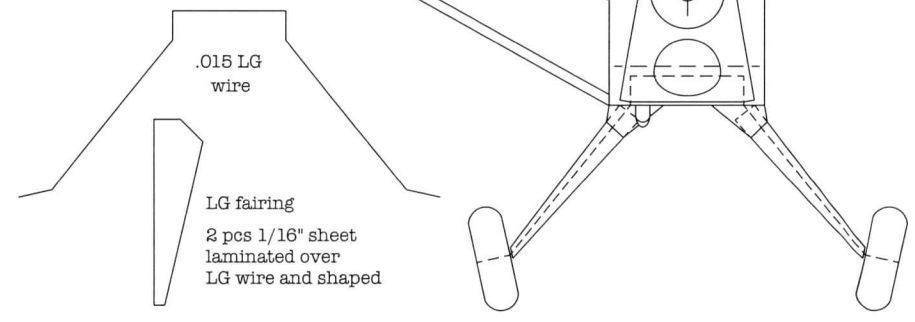








All structure 1/20" square or 1/20" sheet except as noted



BELLANCA YO-50 Peanut Scale

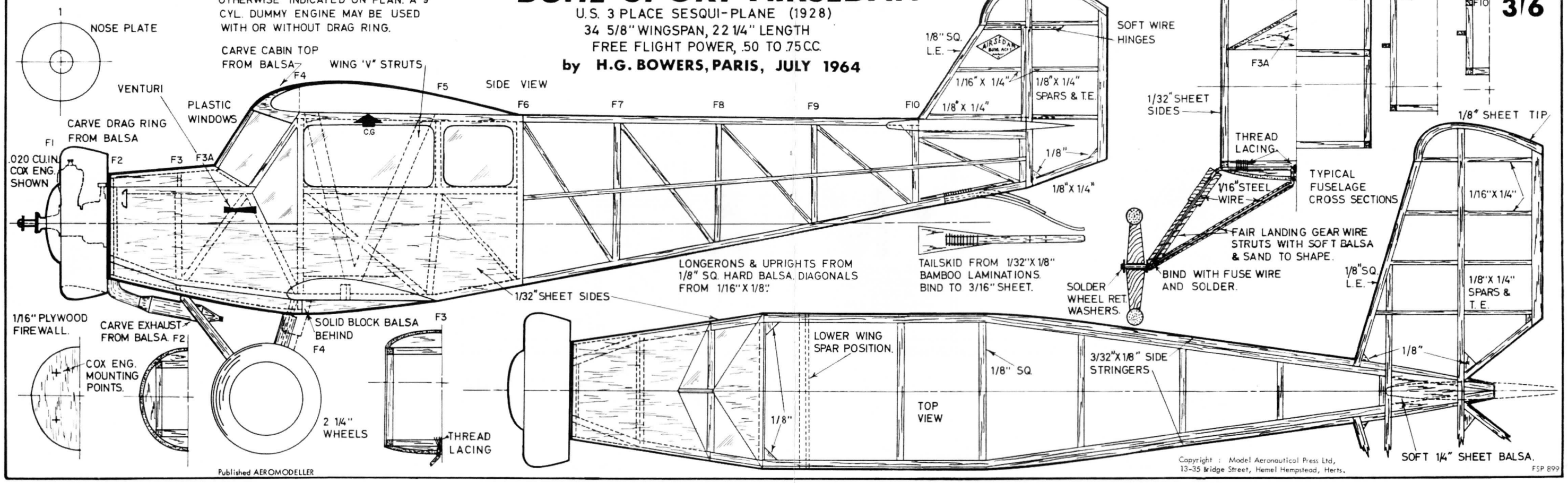
by Dave Mitchell 10/19

BUHL 'SPORT AIRSEDAN'

U.S. 3 PLACE SESQUI-PLANE (1928)
34 5/8" WINGSPAN, 22 1/4" LENGTH
FREE FLIGHT POWER, .50 TO .75 C.C.
by H.G. BOWERS, PARIS, JULY 1964

DJP
Plan value 3/6

NOTE: ALL PARTS MADE FROM BALSA UNLESS OTHERWISE INDICATED ON PLAN. A 9 CYL. DUMMY ENGINE MAY BE USED WITH OR WITHOUT DRAG RING.



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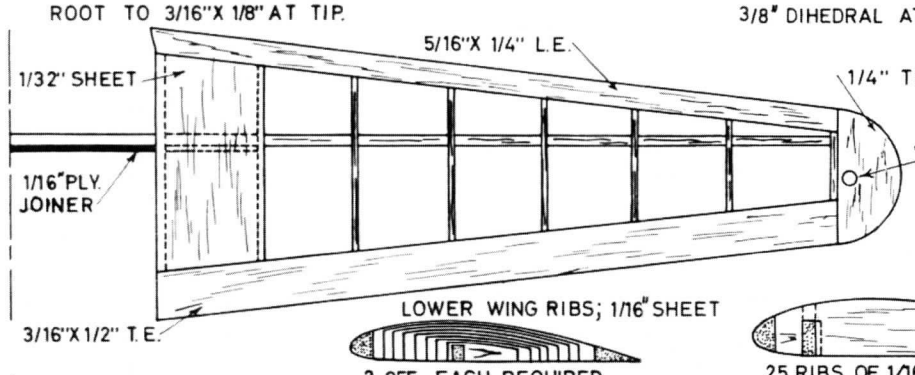
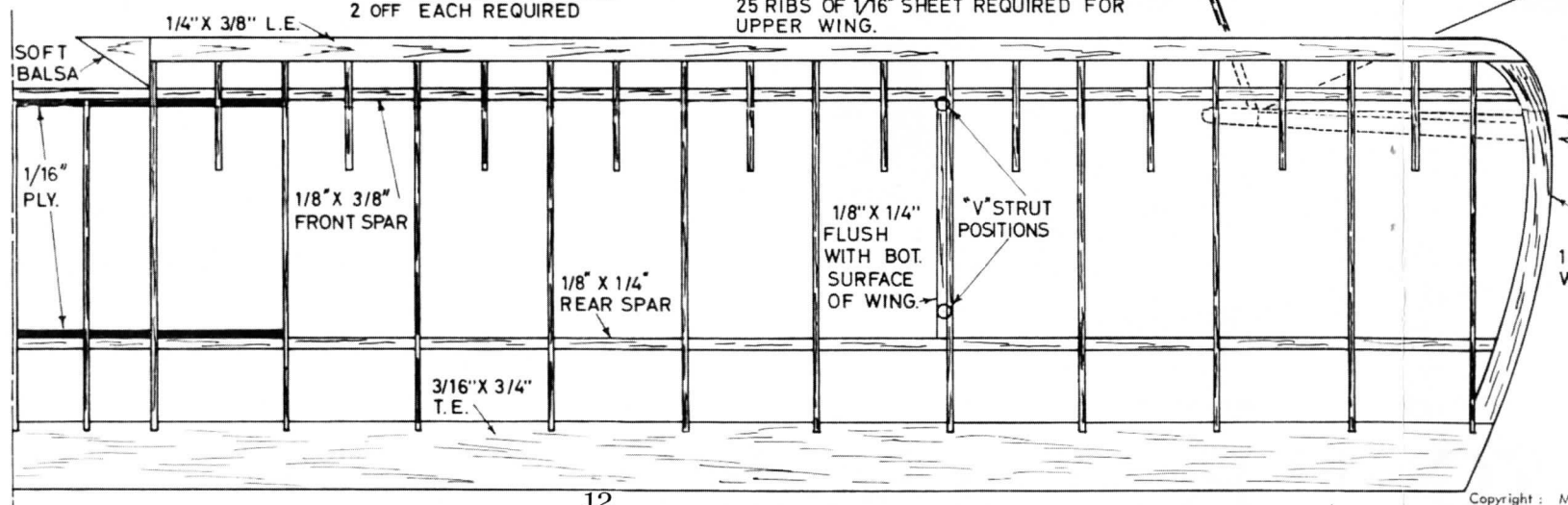
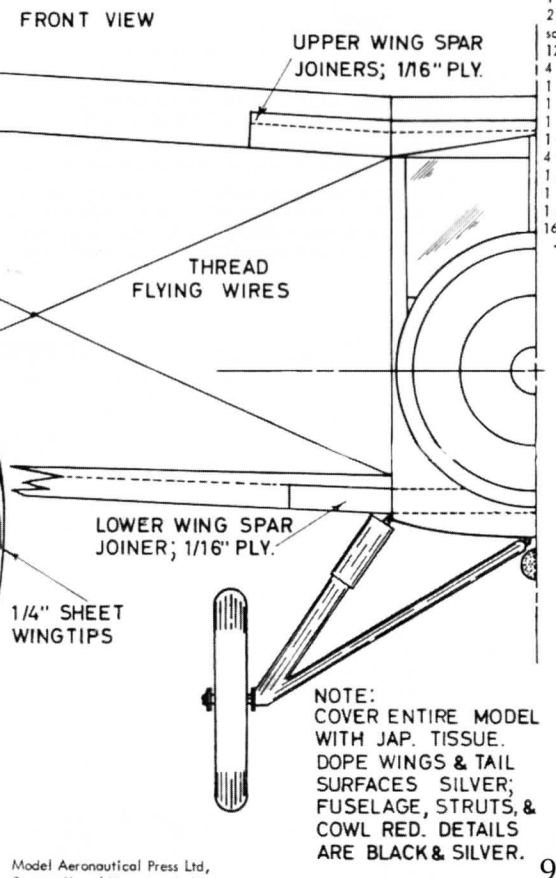
NOTE: 1" DIHEDRAL AT UPPER WING TIPS, 3/8" DIHEDRAL AT LOWER TIPS.

LOWER WING SPAR TAPERS FROM 3/8" X 1/8" AT ROOT TO 3/16" X 1/8" AT TIP.





FRONT VIEW



NOTE:
COVER ENTIRE MODEL WITH JAP. TISSUE. DOPE WINGS & TAIL SURFACES SILVER; FUSELAGE, STRUTS, & COWL RED. DETAILS ARE BLACK & SILVER.

MATERIALS.

1 sheet, balsa, 1/32 x 3 x 36
2 sheets, balsa, 1/16 x 3 x 36
scrap sheet balsa, 1/8 x 1/4
12 strips, balsa, 1/8 sq. x 36
4 strips, balsa, 1/8 x 1/4 x 36
1 strip, balsa, 1/8 x 3/8 x 36
1 strip, balsa, 5/16 x 1/4 x 36
1 strip, balsa, 1/4 x 3/8 x 36
1 strip, balsa, 3/32 x 1/8 x 36
4 strips, balsa, 1/16 x 1/8 x 36
1 strip, balsa, 1/16 x 1/4 x 36
1 1/2 pieces, balsa, 3/16 x 3/4 x 36, trailing edge stock.
1 piece, 1/16 x 36, steel wire
16 square inches, 1/16" birch plywood
12 square inches, 3/32" birch plywood
2 square yards, Japanese tissue
12 square inches, acetate sheet

The "Sport Airsedan" appeared in 1928 as a high performance aircraft with an eye to attracting the sportsmen-pilots of the era. The lines, and sesqui-plane arrangement were in keeping with other models produced by the Buhl Aircraft Company of Marysville, Michigan, such as the "Miss Doran" and the "Angelena". The former was selected by Auggie Pedlar as his entry in the "Dole Derby" of 1927 from California to Honolulu, and was lost along with Pedlar, V.P. Knope, the navigator, and Mildred Doran, an adventurous school teacher whose family, it is said, financed the venture. The "Angelena" gained fame by setting an endurance record of 246 hours while being flown by Loren Mendell and Pete Reinhart. These aircraft were very sturdy, reliable, and quite popular with serious operators of the period.

General configuration and arrangement of the "Sport Airsedan" is most adaptable to a free flight model. With the light weight radio equipment presently available and the generous volume of the fuselage, some modellers may want to build a radio controlled version, which should also prove feasible.

Building: The construction of the model is completely conventional and simple, not requiring any special care or skills. The completed structure is very light, but strong. Begin by building two basic fuselage sides and joining them at the tail post; then work toward the nose. When joined, install the 1/32" sheet balsa sides, the formers, and other planking around the top and bottom of the nose section. A block of soft balsa is used to complete the underside of the fuselage behind Section 4 after a slot is cut on each side to accommodate the lower wing spar. The block is not attached until after the lower wing is mounted. The wings and tail are quite simple and require no special instructions except that of course you need to trace off the wing panel to produce a reverse side and join this in the centre line so the wing is in one piece. The landing gear is built from 1/16" steel wire, faired with soft balsa, and sanded to the final streamlined cross section.

Cover the components prior to assembly with a good grade of tissue and apply clear dope. Should coloured tissue be used, three coats of clear dope may be used, however; if colour doping is planned, reduce the coats of clear dope so as to keep the weight to a minimum. Exercise extreme caution to avoid warps. The importance of an accurate, properly aligned structure cannot be over emphasised. Cut registration numbers from black tissue and dope in place. Finish details in black and silver and use silk thread for flying wires between the wings.

When the model has been completed and balanced at a point approximately 40 per cent of the upper wing chord back from the leading edge, test glide over high grass. Make adjustments as necessary to achieve a long, flat glide. Next, attempt low power flights and use thrust changes to correct any stalling tendencies, and to provide a gentle left climbing turn. When this is obtained use full power. With the light structure and generous wing area, an excellent glide will result.

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