

FLYING ACES CLUB 2015 CALENDAR* www.cafepress.com/flyingacesclub



All profits support FAC activities

* set the start month to January 2015 before ordering

Photo Captions

1. Andrew Ricci sent this photo and update on his XP-82 project: "*The* model will be about 24" long with a 35" wingspan. The props should be almost 10" in diameter and I am hoping to run them on 3 loops of 1/8," kind of like a big twin Skokie!"

The real XP-82 Twin Mustang is undergoing restoration. Check it out at:

http://xp-82twinmustangproject.blogspot.com/p/home_17.html

2. Silver finishes have been a tricky item in stick and tissue modeling since the days of the *original* Flying Aces Magazine. John Berryman has a technique that puts a beautiful finish on tissue, (shown here on his pretty little Latvian VEF I-16) while retaining the translucent look of tissue. Check out his article in this issue. And if you like the look of this unusual little airplane, you can find a plan on the Hip Pocket Aeronautics web site.

3. A trio of classics from the bench of John Ernst. He's a big fan of the Air Devil plans, and he's built quite a few models from the series, often enlarging them to suit his own preferences. Here's a Laird Limousine, Farman 170, and Fokker F.V ready to grace the skies with their Golden Age charm.

We have terrific news for all the fans of Air Devil model designs. The plans are back in print! Check out the listing on page 9. Paul Stott has got the whole catalog of his dad's great flying model airplane designs ready to head to your mailbox. Lads, this is the good stuff!

4. Mike Kaiteris shows off the wing for his newest Jet Cat. He and his dad Peter have been churning out gliders like crazy lately. They've been experimenting with built up wing structures, and having some pretty good results. His Arado Ar 234R looks like a good subject for this event.

5. Here's a report from "across the pond." Mike Stuart has started building a DeHavilland DH 83 Fox Moth from the Dave Rees plan. "After a week's painstaking work, here is my first Rees wing. I have to say I really enjoyed building it and took my time, trying to get all the joins as perfect as possible. I'm very impressed with the torsional resistance of the structure, and also really like the way it looks.

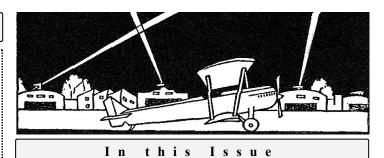
It weighs 2.95 grams. Dave stated on the plan that his wing was 4 grams uncovered, but I'm sure he meant the whole thing - so both panels and presumably the centre section (This is the Fox Moth upper wing). So, in that case I'm way overweight!

Changes from the plan were to use laminated upper rib caps $(2 \times 1/32^*)$ instead of heat bent $1/20^*$ sq. and laminated tips $(3 \times 1/64^*)$ instead of heat bent $1/20^*$ square. My lower ribs were $1/20^* \times 1/16^*$ (laid flat) instead of $1/120^*$ sq. The glue in the laminations will have obviously added some weight."

Look for more photos of this project as it progresses.



On our cover - Even though it's not a WWI ship, it'll help to put us in a biplane mood for the WWI Centennial. Vic Nippert caught this Tiger Moth over Old Rhinebeck Aerodrome, and then did a little photoshop work on the image to create our cover artwork. Thanks Vic!



An Airy Chat with the Editor4
News on the Wing - The word from GHQ4
Bonus Point Quiz4
Nuts & Bolts - A tutorial for listing contests on the website, plus
An appeal from our Treasurer5
No Secrets - Tips and Tricks from the Aces
Suburban Archeology - The Mummy in the Wall7
WestFAC Report
The Spirit is Alive
On Wawayanda Verdant Plain10
How to Calculate Wing Area by Weight
Hi-Yo Silver!
Rubber Scale Modeler's Muse Shop14
Gone West
FAC Membership Information
FAC Contest Calendar

Plans: Something old, something new, something borrowed...

The **Cloudbuster** is sure to be popular with our friends in Michigan. For those of you who suffer from duae-alae-phobia (fear of biplanes) this is a good place to start your therapy. This plan is from the August '43 issue of the old Flying Aces Magazine, and it's got all the ingredients you need for a good flier. The plan was drawn up my none other than the late, great Al Cleave.

The **Travel Air Model R Mystery Ship** is from Dave Pishnery. Hard to imagine another ship that embodies the Golden Age of racing in America as much as this one does.

Stew Meyers did a nice Peanut Scale Albatros D.I back in 2006, and Dennis Norman did the SPAD XIII about the same time. These could both be contenders in the upcoming WWI Peanut Combat event. Both are proven fliers.

We've also got a Jet Cat for you this time. The **Fokker S.14 Mach Trainer** from Bill Simpson has a pretty good layout for a glider...and a simple color scheme. Take it to your local copy shop and make it any size you like.

One of the few WWI monoplane plans floating around out there that has some potential for our Peanut event is the Mooney version of the Siemens Schuckert E.I. These didn't make it to the front until the heyday of the eindeckers was over so they didn't see much service, but according to at least a couple of sources they were in the war. The Mooney plans are pretty easy to come by. One interesting way of finding a big batch of them is through the **waynesfreeflightmodels.wordpress.com** website. It has some interesting items there, and among them, there's a link to a site where Walt Mooney's plans are available as free downloads. The little Siemens Schuckert is among them. So is the Fokker D.VI, which is a great plan if you're thinking of a biplane...and don't mind dealing with lozenge camouflage.

Our sincere thanks go out to all the contributors!



Greetings Junior Birdmen, I seem to be at polar ends of the model building

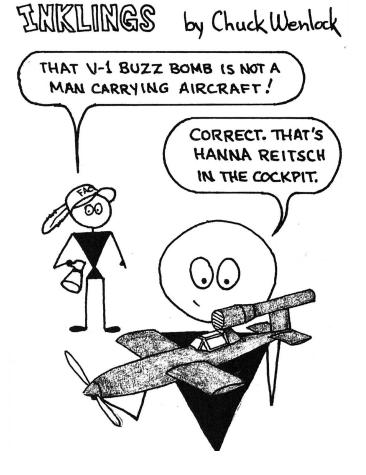
spectrum these

days. I've got my WWI Peanut Scale monoplane started while I'm picking wood for the unofficial Mega Scale event. (Check out Vance Gilbert's latest musings for the details on that one.) Building small scale models tends to warp my sensibilities. After the first couple of Peanut Scale bench sessions, those little 1/20" sticks start to feel "normal." When I switch to something in the 24 inch span neighborhood, the balsa bits feel like two by fours until my head gets recalibrated. It ought to be real interesting to see what happens as I go from 13 inch span to 54 inches!

The plea for **Peanut Scale WW I monoplane** plans has thus far yielded bupkis. One fellow suggested that the old Aero Era plan for the Junkers D.I might be a good one to run. We tend to stay away from publishing plans when there may be copyright issues. But if you are considering that one, you'll probably have to add some dihedral, eliminate the foam that is incorporated into the fuselage structure, figure out a way to suggest the corrugations in the covering, and be sure to add some guns. The airfoil is a strange lump of a thing too. So while it's a fairly simple looking machine at first blush, like many things in modeling (and in life) it gets more complicated when you get into it. If you have a good plan in mind for this event, *please* pass it along to the editor! Meanwhile, we'll run some biplanes to get you started.

It's **FAC Calendar** time! Tom Hallman once again has compiled an amazing collection of Free Flight fotos for your enjoyment throughout the year. Nothing like seeing a beautiful model in the air to get your day started right. Check out the ad on our inside front cover for all the ordering details. It's a real beauty!

> See you on the flying field! Wingnut



News on the Wing



A recent national news story caught my attention. A reporter on the street was asking passerby's what the significance of that particular day was. Several had no idea. Finally a mature woman responded, "December 7th…Pearl Harbor."

That my friends, is a 'segway' into this news story...

What was the significance of July 28, 2014? Did you say, "The 100th anniversary of the start of WW I?" I would venture to say that more FAC'ers (by percentage) know that than the public at large...especially those of you who fly WW I Dog Fight. While it is not our place to judge the governments of that area, we can honor the men and machines of that time...a century ago.

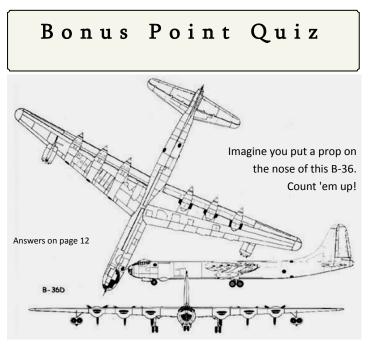
Announcing the "**Centenary of WW I Event**" for the 2015 Non-Nats and 2016 FAC NATS. This will be a PEANUT WW I MASS LAUNCH EVENT. That's right...a ML for Peanuts. And to spice it up, Monoplanes will be included.

Did someone just ask, "What planes are eligible?" Well, it just happens that a rule has been discussed, debated, refined and re-written in regards to that vague language of what defines a "production aircraft for any scale event. The rule book will soon state that if an aircraft was built and flown...it qualifies as "produced." As is customary for our "combat" events, however, combat service remains a required qualification.

And speaking here about Peanuts...Council has decided to delete FAC Peanut Scale from the 2015 Non-Nats and replace with that ol' favorite, GHQ Peanut Scale. Did I just hear a hardy cheer go up? If numbers warrant, this could become the norm at our largest venues.

Suddenly I have a craving for peanuts...how about you? Ross





Nuts & Bolts



7 Easy Steps for Listing an Event on the FAC Website Contest Calendar

Hello fellow FAC'ers. This little message is intended primarily for those of you who are charged with sending me information about upcoming local contests to be listed on the FAC Website Contest Calendar. The rest of you can go back to your building boards.

I am writing this to lead, plead, beg and beseech you to follow a simple but precise, 7-step format; one that guarantees your contest listing will appear promptly on the website.

Here's the deal. I present the contest calendar listings in a very consistent manner. Here's what a typical listing looks like:

JANUARY 18, 2015 MAXECUTERS INDOOR MEET AT THE NATIONAL BUILDING MUSEUM

Washington, DC National Building Museum Host Club: DC Maxecuters

CD: Glen Simpers (Click here to contact) Events: (Click here for event flyer) (Click for map to the NBM)

Let's break it down line by line. Here is what I would really like to receive from you:

Line 1: Provide the DATE(s), and the TITLE of the event—all in capital letters.

Line 2: Provide the city / state of the contest. Normal capitalization, please.

Line 3: Provide specific location: municipal building, school, field, etc. Normal capitalization.

Line 4: Provide the Host Club. Normal caps.

Line 5: Provide the CD of the event, and his / her preferred contact information. Normal caps.

Line 6: Provide an EVENT FLYER listing events to be flown, what days, a map to the field, etc.

Line 7: Provide any other useful information-link to a Google map of the field, a link to a club website for more info, etc.

Why do I want it to be just so? Because what I'd **really** like to be able to do is simply "copy and paste" the provided information from your e-mail into the website's code, with minimal editing. Bada boom, bada bing. If you will help me to do this, it would make my life as your webmaster SO much simpler.

If, on the other hand, I get an e-mail that says something like this...

"Dave, the Flying Umpity Umps are going to have a contest on January 31 at Good OI' Field. January 30th is the rain date. We're going to fly FAC Scale, Simplified Scale, Dime scale, WWI and WWII, Thompson, Greve, and maybe Golden Age. Could you post this on the website? Jim is the CD, his e-mail is jim.gmial.co if you have any questions. Thanks, Joe"

...I will try to work with it, but it will take lots and lots of time to post, because on account of my unmedicated compulsions, a) I will have to try to sort all the information into the desired format and b) I will have to create a flyer for your event because I can't be listing every event you are going to fly on the website individually and c) I will probably try to figure out where Good Ol' Field is so I can provide a link to a map and d) I'll have to do this without Jim's help because the e-mail provided is not correct.

Cheers, and thanks for listening!

Dave Mitchell, FAC Webmaster



Membership renewals... an appeal from our Treasurer

I need a little help. *Please* send your renewals in on a timely basis. Last minute changes to the mailing list cause a lot of extra work for both me and the printer. Please give us a hand and send in that payment as soon as your renewal is due. You can check your renewal date any time by looking at the address label on your newsletter. If in doubt, send us a check! You'll get credit for six more issues no matter when the check arrives, but we can't back up the calendar. *Once the newsletter has gone to print, it's out of our hands and you will miss an issue.* If you do your bit for the FAC, there's no danger of that happening. Thanks, Bubba



Making printwood using your inkjet pritner

I saw a youtube video the other day that gave me a new technique for transferring plans with an inkjet printer. I've modified (I think perfected) the process with the steps below.

Several people seemed to be having questions and trouble sourcing double stick tape (plus it isn't that cheap) so I did a little more experimentation and found that my UHU glue stick works too-- this is faster and more economical.

Essentially all we are doing is giving the wax paper a backing that the rollers can grip as it runs through the printer... here are the steps:

- Begin with a sheet of 8.5×11 paper and spread a seam of adhesive from your glue stick around the perimeter (edges).

- Roll out a piece of wax paper slightly larger than the backing paper, making sure to make it lay as smooth and flat as possible.

- Place the backing paper (glue side down) onto the wax paper and smooth out any wrinkles.

- Trim away any excess wax paper

- Place in your printer so that the wax paper will be up and printed on (Manual feed is most likely best option because there is less maneuvering of the paper)

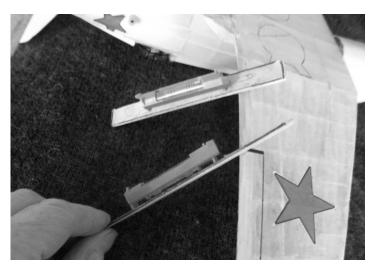
- After printing carefully trim around the area to transfer, place the ink side of the wax paper down and onto the balsa... DO NOT SHIFT after placing or it will smudge.

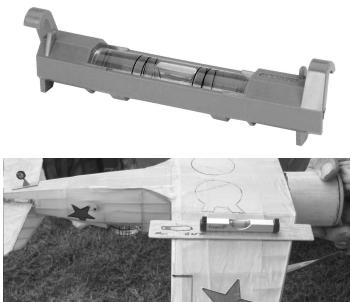
- For the best results (and darker lines), use a credit card or piece of plastic to press the transfer against the wood. Just remember not to press too hard, this is Balsa, not Northern Red Oak.

Randy Sizemore

Washout Inclinometers, cheap

Dave Stott wrote about these. A single photo worth a thousand words as they say. Part of problem is "What are these things called?" Stone masons use them. (*String levels or Line levels - Ed.*) Buy two...or four if you have a bi-plane. In the example, the plane is inverted. Thus, beware of the reading reversal.





I see that the camera picked up the bubble and it shows lots of washin!! Gads!!! Of course I just clicked the camera thinking of background and not leveling the whole aircraft. The ink dot shows proper location of bubble when root inclinometer is zero.

Bruce Foster

A Simple Jig for Attaching Wings to Jet Cats

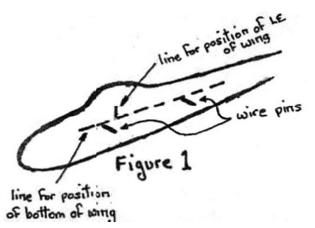
From The Thermalier 5/14 - George White editor

I like to build Jet Catapult Scale planes. Most of them have mid-wings or at least the wings are not attached at the top nor at the bottom of the fuselage. Usually I have to cut a hole the shape of the airfoil to insert the wing or if it is close to the top or bottom of the fuselage I can cut out a section of the fuselage and then, after inserting the wing, reshape the piece to fit back in place. Gluing on the wings either way has been my least favorite part of the building process.

Since I use jigs whenever possible, I thought one could be designed to make gluing on the wing enjoyable. I ended up with a jig that is simple and easy to use. It consists of a plywood base that is 8" x 12" x 1.5" with a 3/32" slot cut 2 inches from and parallel to the 8" side. The slot needs to be only wide enough to fit your fuselage and deep enough to hold the fuselage at a level where the bottom of the wings will be at the surface of the base. There also should be enough wood left after cutting the slot to hold the base on either side of the slot together. To get the correct thickness for the base, pieces of plywood or other wood can be glued together. I make mostly 12" wingspan jets and a jig that is 1.5" thick meets most of my needs. Larger models will need a thicker base. Once the jig is made the steps for using it are as follows:

- On one side of the fuselage, draw a line where the bottom of the wing should go. Make the line about 0.5" longer on each side. Also mark the position of the LE of the wing. At either end of the line, drill a very small hole and insert a l" piece of music wire half-way through the fuse-

lage. I use 0.025 wire. The hole needs to be the same size as the wire so



that the wire does not move up or down. Any small size wire will work and the length is not critical. (Figure 1)

- Insert the fuselage into the slot on the jig, making sure that when it rests on the wire pins it is perpendicular to the surface and flush against

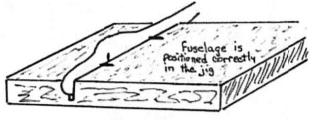


Figure 2

the slot on the side the wing will be attached. The line for the bottom of the wing should be at and parallel to the surface of the jig. (Figure 2) - Using a block to raise the wing to the proper angle, push the wing against the fuselage and carefully use a very small amount of thin CA to tack the wing in the correct position. (Figure 3) Remove the fuselage and attach the wing firmly with CA.

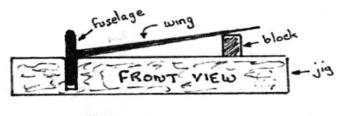


Figure 3

- Reverse the fuselage and repeat the process for the other wing. The location of the LE can be found by looking down on the fuselage. A better way would be to draw a line across and perpendicular to the slot. The attached wing can then be lined up on the line and the line on the other side will make positioning the LE of the other wing easy.

The critical parts of this process are the following: 1. the fuselage is perpendicular to the surface of the jig, 2. the fuselage is flush against the side of the slot where the wing is being attached and 3. you do not glue the jet to the jig when tacking the wings to the fuselage. By modifying the width and depth of the slot and the length of the base this jig should be useable with almost any model. The exception is for the jets where the wings are attached very close to the bottom of the fuselage.

Gary Morton

Suburban Archeology

Ed DeLoach was having some home remodeling done recently, and uncovered a mystery in the process. We'll let him tell the story.

The house was built in 1937 and bought by Don's grandmother in 1940. She raised three children there including my late wife Cecilia, plus three grandchildren, and lived there until she died at age 102 in 2009. Very solidly built house. The house was about to be gutted inside and extensively remodeled.

After cutting out

some of the sheetrock, the mystery model was found with some old 1940's letters. My contractor who did the cutting handed me the letters, then he handed me the fuselage bones and said "here's something else I found alongside those letters behind that wall". My



eyes must have gotten as wide as saucers and jaw dropped when I saw it. I'm glad I was sitting down.

We initially cut out a few wallpapered sections as memorabilia to preserve. The memorabilia uncovered was way more than we were after, a shock and pleasant surprise and total mystery. There were a bunch of ancient greeting cards and letters with postmarks of 1940 through



1942 stuffed in the wall next to a balsa fuselage frame. No sign of wings or any other part. Looks the size of a dime scale model from that era. Most amazing to me was not only how and why it got in that wall but how anything that fragile could have been that intact after that many years. I've heard that pack rats sometimes make nests of objects inside walls. I guess another possible answer is that a free flight modeler from that era put it there as a time capsule designed to both humor and totally confound some future generation. If, so that mission was accomplished in spades. Who knows, maybe the dreaded Hung is responsible. Although we'll never know how or why it got there it really revs up the curiosity.

Mummy in The Wall

· Bo



WESTFAC News from Out West

Well Clubsters, the flying season ended for the Scale Staffel FAC-41 with a bang as they closed out 2014 with a great last event. The flying weather on Saturday was great, but you could not buy a thermal, so most times were down. Sunday became a blow out around 10AM, but many folks got their flights in.

Two new Contest Directors flapped their wings in that job at this event. William Scott, who is the Scale Staffel web-master and George Mansfield did a masterful job of controlling the marginally insane and the mostly confused flyer group. That is to say, we all had a good time.

Coming from as far as Colorado and Las Vegas and as close as the new FAC Squadron in the OASIS Community, our group of flyers really had fun that weekend.

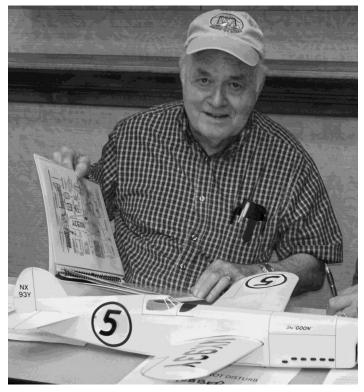
As this was the last contest in 2014 for this Squadron, they awarded the Grand Champion of the Year Award. This award is made up of points for placing 1st,2nd or 3rd in any event during the contest year. This year the 2014 Grand Championship was awarded to BOB HODES from the Vulture Squadron in Las Vegas. Bob drives 5 hours each way, three times a year to fly at Taibi Field in these FAC Events . What a trooper.

During the awards ceremony, a special "surprise " ceremony was held to present George Mansfield with his BLUE MAX. George was asked to kneel as John Hutchison tapped his shoulders with a ceremo-



nial sword and placed the BLUE MAX on George.

After the ceremony, all BLUE MAX holders at the event posed for a picture with George from L to R Herb Kothe, Bob Hodes, John Hutchison, the recipient George Mansfield and self. This was a happy time for George, for like myself, it took many years to reach this goal.



As we heat up the planning cycle for WESTFAC V, we plan to introduce its officials to you. This column will introduce our Head Scorekeeper, Ed DeLoach. Ed lives near Dallas Texas and has been a FLYING ACE for many years. During WESTFAC II in Gainsville Texas, Ed performed a masterful job consolidating our scores and determining the Grand Champion. He will be assisted by members of the Arizona Condors at WESTFAC V in Buckeye Arizona in October 2015.

Our Western Squadrons are busy with planning and scheduling their 2015 events. Our newest Squadron, the OASIS Fyers will be holding their very first contest in 2015. During January, we will begin a new BUILDING and FLYING Workshop which will expand this Squadron by 1/3rd making it one of the largest groups of FLYING ACES actively flying in the West.

Many Maxes to All..... Roger Willis WESTFAC HQ.

The Spirit is Alive...

Anonymous Reporter - the True Spirit of the FAC:

Story 1 -

(holder for a high-kanoned, contest-CDing, WW2 combatant in mass launch of about 7 guys): "Wow, that looks like a short motor..."

(flyer, quietly): Yeah, it's 15%

(holder, looking around): Are the other guys running 15%?

(flyer): Well, uh, no...but me, *unnamed (lots of kanonen)* and *unnamed (tons of kanonen)* are. The other guys are just getting their feet wet at this, so we don't strictly enforce it with them...

Story 2 -

Scale judge finds out 25 minutes before the contest's end that quorum (at least 3 contestants) for Jumbo/Giant hasn't been reached. He quickly whips out a Jumbo, puts up a 39 sec flight, and proceeds to judge his own plane. Although his ship is well appointed and finished, gives himself 1 point lower in each category than the lowest Jumbo Giant scores. The event lives.

DAVE STOTT'S AIRDEVIL MODEL COMPANY DESIGNS



ALLIANCE ARGO	16" BIPLANE	PLAN BOOK VOLUME ONE MAX-FAX NOV-DEC 2010
PITCAIRN FLEETWING	16" BIPLANE	PLAN BOOK VOLUME ONE KITTED BY EASY BUILT
STEARMAN MODEL 90 TRAINER	16" LOW WING	PLAN BOOK VOLUME ONE
GREGOR FDB-1 CANADIAN FIGHTER	16" BIPLANE	FLYING ACES NEWSLETTER
NICHOLAS BEAZLEY FLYABOUT	20" PARASOL	PLAN BOOK VOLUME ONE
ONG CONTINENTAL	16" HIGH WING CABIN	PLAN BOOK VOLUME ONE
WACO CSO BRAZILIAN FIGHTER	16" BIPLANE	PLAN BOOK VOLUME TWO
REARWIN CLOUDSTER PAN AM INST. TRAINER	16" HIGH WING CABIN	PLAN BOOK VOLUME TWO KITTED BY EASY BUILT
LAIRD LIMOUSINE	16" BIPLANE	PLAN BOOK VOLUME TWO
FAIRCHILD PILGRAM HAROLD GILLAM'S BUSH PLANE	16" HIGH WING CABIN	PLAN BOOK VOLUME TWO
FOKKER B-1	16" BIPLANE	PLAN BOOK VOLUME TWO
HOLLYWOOD TRAVEL AIR 6000 BARRANCA AIRWAYS "CALLING BARRANCA"	16" HIGH WING CABIN	PLAN BOOK VOLUME TWO
FAIRCHILD 24-C8A	16" HIGH WING CABIN	FLYING MODELS AUG. 2000
AERO ITI TRAINER	16" LOW WING	FLYING ACES NEWSLETTER
NORTH AMERICAN P-51b CHINESE	16" LOW WING	SINGLE PLAN
DEWOITTINE D-332 TRANSPORT	15" LOW WING TRI-MOTOR	FLYING MODELS NOV. 2005
VOUGHT SIKORSKY KINGFISHER	10" MID-WING IMP SERIES	FLYING ACES NEWSLETTER
FOKKER F-V TRANSPORT	16' HIGH WING	CROSSWINDS NEWSLETTER
1937 COLLIER AMBASSADOR	16" BIPLANE	SQUADRONS UP #46 NEWSLETTER
SOLAR MS-1 TRANSPORT	16" SESQUI PLANE	FLYING MODELS SEPT. 200 FLYING ACES NEWSLETTER
"HOLLYWOOD" HAMILTON H-47 METALPLANE BARRANCA AIRWAYS	20" HIGH WING CABIN	PLAN BOOK VOLUME ONE KITTED BY EASY BUILT MAX-FAX NOV-DEC 2010
VICKERS VENOM	20" LOW WING	FLYING ACES NEWSLETTER

PLAN BOOK VOLUME ONE OR TWO cost a couple of bucks (\$3.00) each to mail ANY OTHER SINGLE PLAN NOT IN PLAN BOOK cost a couple bucks (\$2.00) each to mail First Class Mail in U.S.A. Send bucks to; Paul Stott 175 Thoreau Dr. Shelton, CT. 06484 Telephone 203-929-5139 Any questions please write or call



WWW.EASYBUILTMODELS.COM

Barron Field Air Races

October 18 - 19

Wawayanda, New York



Fiction Flier mass launchers - Jack Kacien, Greg West, and Tom Hallman.

No newsletter would be complete without a shot of Wally Farrell launching a model. This time it's his Breda 88.



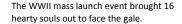


On Wawayanda, verdant plain

On Wawayanda, verdant plain They toss'd 'em up, again, again. Though spiteful wind did curl and roar, beat about and come still more, and fetid trenches' open mouths devour'd them east by north and south, and spotting rain and other bluff (as if the other wernt enough) did strike and flail, twist and mangle, wet and wad into a tangle, cast down hard and rocket higher wood and tissue, rubber, wire, vessels of their simple dreams, more than toys, yet not machines; These full they cast upon the wind ere came anon a bitter end.

And didst they see the world about in colors real, and free from doubt? Or, thought t'was true that which was not, their minds benumbed, bewitched, besot? Cruel Hung supplied intoxious balm Where violence appears a calm! Else how would any mind aright in foolishness attempt a flight? Yet simple children, lost at play returned to try another day; And toss'd 'em up, again, again, On Wawayanda, verdant plain.

Pete O'Tewbe





Oliver Sand took the top spot in 2 Bit OT Rubber with his Jr. Commercial.

Jack Kacien readies his Giant Waco for flight.



Saturday events Way		Waway	anda	2014	36 c	ontestants					
FAC Scale (6 flye	ers)				World War 1 Mass	(11 flyers)					
1. Tom Hallman 2. Pete Kaiteris 3. Jack Kacian	DO-X Me 109Z Ercoupe	157.5 145 135.5	(best fl (best fl (best fl	t 54)	1. Tom Hallman 2. Wally Farrell 3. Dick Gorman	Fokker DVII Martinsyde S.1 SE-5		Fi	nal Fl	light	91 74 43
FAC Peanut Scal	le (6 flyers)				Golden Age Racer	rs (14 flyers)					
1. Tom Hallman 2. Tom Nallen 2 3. Ed Pelatowski	Bleriot XXVI Fokker M.17-E Wittman Tailwind	154 127.5 118	(best f (best f (best f	lt 52)	1. Dave Mitchell 2. Paul Stott 3. Jim Hemmel	Mr. Smoothie Haines Brown B-2		Fir	nal flig		109 106 74
Embryo (15 flyers	s)				Fiction Flyer (5 fly	ers)					
1. Charlie Sauter 2. Wally Farrell 3. Paul Stott F	Debut Debut Flying Aces Gypsy		15 (9) 11 (9) 13 (9)	304 263 286	1. Tom Hallman 2. John Houck 3. Wally Farrell	Smilin' Jack X-13 Joy's Racer Booth Ranger		Fi	nal F	light	80 58 50
Nocal (8 flyers)					Simplified Scale (8 flyers)					
1. Wally Farrell 2. Jim Hemmel 3. John Houck	Cardinal Martin Mauler Meteor	88 97 85 101 63 63	172 46 73	357 232 199	1. Wally Farrell 2. Dave Mitchell 3. Ed Pelatowski	Cessna 140 Stinson 049 P-47	83 80 52	74	109	1bp	
Golden Age & M	lodern Civilian (6 fly	/ers)			BLUR Race (12 fl	yers)					
1. Dave Mitchell 2. Glen Simpers 3. Mark Houck	Piper PA15 Howard DGA- Piper Vagabor		8 80	257 217 105	1. Andrew Ricci 2. Pete Kaiteris 3. Ed Novak	Chamberm Jack Rabb Mr. Smootl	it	Fin	al flig	F	Fastest !! aster ast
		A			NBM (No Blue Max	k) Flying Horde (14	lyers	5)			
5	3	N/c \									



IMPORTANT RENEWAL	INFORMATION
-------------------	-------------

1. Glen Simpers

2. Rick Pendrick

3. Charlie Sauter

Howard

SR-8

P-51B

To continue receiving NFFS Digest without interruption, your dues should reach the NFFS Membership Office at least two (2) months before your current expiration date. For example, if your *Digest* mailing label says your month of expiration is August, NFFS should receive your payment by June. Do not wait for a reminder from NFFS. You will be late and miss an issue

NFFS MEMBERSHIP & RENEWAL APPLICATION

Mail to: NFFS Membership Office P.O. Box 74 Grosse Ile, MI 48138 USA	Make checks payable in U.S. dollars to: National Free Flight Society
Dues include a mandatory \$0.50 per year	r for NFFS membership.
U.S. memberships (Age 19 & over)	2 years \$58.00 (\$18.00 Youth) 1 year \$30.00 (\$10.00 Youth)
Youth: Age 18 & under as of July 1 of the current ye	ar
International: 2 years \$58.00 1 years \$5	58.00
Check here if you desire <i>Digest</i> delivery via ema	il. This saves valuable funds on
First-Time or Lapsed (more than 1 year) Do 2 Years for \$29 2 Years Youth for \$ Offer expires very soontake advant	9 🔲 International \$37.50
To help reduce expenses maints PLEASE renew for at least two	
Check appropriate boxes below:	
New Member 🗆 Renewal 🗆 Address	Change 🗆 Donation 🗆
Amount: \$ Current expiration	n date: MoYr
PLEASE PRINT VERY CLEARLY	Date of Birth M / D / Y
Name:	
Address:	AMA#:
City, State:	Zip:
Telephone:	
Email Address:	
Send all renewals, address changes, ap questions to the Membership Office, en	
Please go to www.freeflight.org for credit	

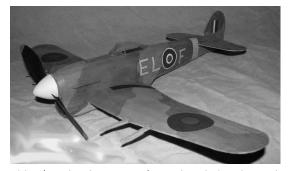
Sunday even	ts	Wawa	yand	la 20	14							
Jumbo Scale (5 fl	yers)					World War 2 Mass	s (16 f	lyers)				
1. Tom Hallman 2. Wally Farrell 3. Ed Pelatowski	MiG-DIS BN-1 Folkerts SK3	163.5 156 129	1	lt 77) fit 90) fit 72)		1. Andrew Ricci 2. Wally Farrell 3. Charlie Sauter		P-51 F P-51 P-51B	inal flig		65 62 36	
Power Scale (5 fly	vers)					Contra Rotating I	Prop	Mass (4 flyers)				
1. Wally Farrell 2. Vic Nippert 3. Tom Hallman	Staggerwing Waco CG-4 Airco DH-2	190 178 114		fit 102		1. Wally Farrell 2. Dave Mitchell 3. Tom Hallman		Koolhoven FK-5 Caparoni 183 Koolhoven FK-5		Final	flight	74 13 5
Dime Scale (9 flye	ers)					Catapult Jet Scal	le (10	flyers) score inc	ludes s	scale	& bor	nus pts
1. Wally Farrell 2. Tom Hallman 3. Andrew Ricci	Staggerwing Staggerwing P-51B	102 7 75 7 50 3	1 53	15bp 15bp 10bp	214	 Pete Kaiteris Glen Simpers Eddy Novak 		Arsenal VG-90 Banshee F-84	16 12 18	22		7: 7: 6!
Low Wing Military	y Trainer (3 flyers)					2-Bit + 1 OT Rubb	ber (4	flyers)				
1. Dave Mitchell 2. Wally Farrell 3. Tom Nallen 2	Miles Magister Miles M.18 DHC-1 Chipmu	53		120 85 62	250 187 171	1. Oliver Sand 2. John Stott 3. John Houck	S	r. Commercial Skokie Skotch	46 120 23	43 24 50	79 - 28	168 144 101
Peanut Goodyear	r Racers Mass (5	flyers)				Flying Horde (12	flyers)	3 tied at 42 set	conds			
1. Dick Gorman 2. Dave Mitchell 3. Tom Hallman	Sonerai Swee' Pea Snoke Swifty Ju	r.	Final F		60 15 11	1. Walt Farrell 2. Bernard Dion 3. Rick Pendrick		child 24 w/banne		f flyof mage mage	d	28 sec
Harvey Wallbang	er Award											
Wally Farrell - one						High Point Junior	Flyer	Oliver San	ť			
another model nos plusit was the or Serious.						2014 Grand Chan	npion	Walt Farre	ell			

--------**Diels Engineering Announces** Laser Cut Complete Kit #29-LC

-

Hawker Typhoon

ADVANCE ORDER SPECIAL PRICING



The model is 1/24 scale with a wingspan of 20.8 inches. This latest laser cut kit of the 10 Hawker Typhoon British WW2 Fighter Bomber has been upgraded from our old printwood ا∎ Kit #29 by converting the printwood to laser cut balsa. At the same time we made a few I. revisions which are detailed in separate detail sheets. The kit contains printed plans, 1 added detail sheets, laser cut wood, stripwood, lightweight tissue, hardware, formed plastic canopy, and full color insignias. I. The list price for this upgraded kit will be \$41.95 plus \$10 Shipping and Handling. If you III act now you can have one for the Introductory Price of \$35 plus \$10 S&H. If you want to I∎ order more than one kit the extra kits would be \$33 each plus \$2.00 S&H. (Ohio residents ■I ass local sales tax.) This Introductory price is only good until late February 28, 2015. Initial production will 10 start in early January 2015 with the first limited quantity run. Full production will start in 10 I∎ Mid-March 2015. Initial quantities are limited so act now as the next order of materials will not be here until mid March 2015. I 10 Order using PayPal through our website: http://dielsengineeringinc.com Or send snail I. mail orders to: 18 I Diels Engineering, Inc. 10 PO Box 167016 18 Questions to: dielsengr@buckeye-express.com Oregon, OH 43616 I

-

-

-

Final flight 69

68

65

÷

10

1

I

10

I

10

I.

1

I

18

1

10

18

I

10

I

1

10

1

18

How to Calculate Wing Area by Weight

Bob Hodes - Vegas Vultures

Photo 1 shows the recently-completed wing of a Cessna CR-3 racer. I need to know the wing area so that I can calculate the wing loading of the completed model. I could estimate the area, and probably come out close, but there is an easy way to determine the actual wing area without having to use any complex calculations. Here is what you will need: (photo 2)

1. An outline of the wing from the plan (in this case I chose to do a half wing, so the final result will need to be doubled.

2. A piece of cardboard cut to a rectangular shape — large enough to contain the wing shape. (The actual dimensions are not important).

3. Gram scale

Here is how to do it:

1. Measure the piece of cardboard that has been cut to be larger than the wing shape. In this case, the dimensions are 6.5" x 11.5", or 74.75 sq inches. (photo 3)

2. Weigh the cardboard. My piece of cardboard weighs 23.7 grams. (photo 4)

3. Cut the cardboard to the exact shape of the wing section. (photos 5 and 6)

4. Weigh the cardboard with the wing shape. Mine weighs 17.6 grams. (photo 7)

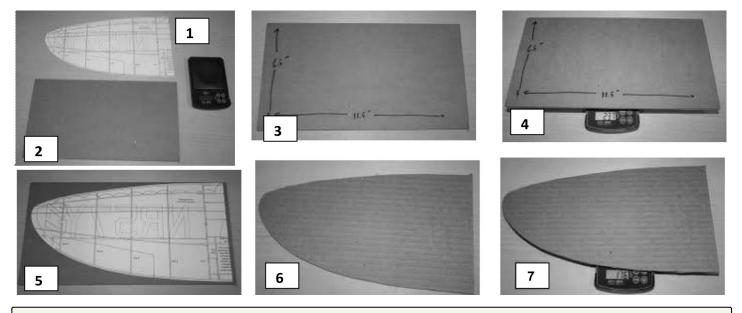
5. Now, the wing area can be calculated by using the proportional weight of the cut piece of cardboard , which

represents the wing area, to the original piece of cardboard (with the known area).

Wing area = (weight of cut piece) / (weight of the original piece) x (area of original piece).

For my half wing section: wing area = $(17.6g)/(23.7 \text{ g}) \times (74.75) = 55.51 \text{ sq}$ inches

The total wing area then is 55.51 X 2 = 111.02 sq inches.



BP Quiz Answer

I've been told that those in the know in the '50's called this bird ""4 burnin' and 6 turnin". Here's the count.:

Shoulder or mid wing - Judges discretion. I say that the wing goes well past where a mid-wing would sit, so the builder gets the 5 points.

5 points......Mid-Wing (see Appendix A: Determining Mid-Wing Status)

12 (6X2).....Each non-powered scale size / diameter prop

2 (1X2).....Each housing for a "static" jet engine(s) attached to a wing or the fuselage via an appendage.

Why was this a potentially tricky bonus point quiz? Because some think that those backwards facing engines get "pusher points". Nope, they do not! No matter which way they face, they are along for the ride and no more...

Yeah, draw you a bunch of circles one night, do that wing cracked rib style another night, tail surfaces, cover, and badabing you gots a 19 point Scale job at any size.

Hi-Yo SILVER! A Silver Finish for Small Models John Berryman

For many years, I've been using the following unsatisfactory approaches for producing a silver ("aluminum") finish on small (13" to \sim 20") models:

1. Leaving the tissue white, telling myself it sorta looks like silver. Hey, delusional thinking becomes easier as one ages.

Spraying the tissue with any of several silver finishes (e.g., silver dope, silver acrylic, silver lacquer). The problem here is that for me, this approach produced an opaque "toy like" finish that I personally find unacceptable. I LIKE to see the structure I worked so hard on!
 Gray domestic tissue from Shorty's and A2Z. See remarks on "delusional thinking" in (1.) above.

4. Most recently, I obtained silver tissue (one sample was labeled as Esaki) from two different suppliers, <u>and while I absolutely am not</u> throwing rocks at either supplier, I noted the following problems that are probably distinct to my own particular application, and my own personal preferences with respect to how my models – not necessarily your models – should look:

a. Used "silver side out" alcohol had difficulty penetrating the silver finish.

b. The tissue seemed to have lost some of its ability to address compound curves

c. The resulting finish was "toy-like" to my eyes.

d. Used "silver side in" alcohol penetrated much better...but...

e. See (b.), above.

f. The resulting finish was...muddy (?) to my eyes and obscured the internal structure to an extent that was, to me but perhaps not to you, unacceptable.

<u>Again, I want to stress that these products will undoubtedly work fine</u> <u>in many applications, and that many modelers may find the resulting</u> <u>silver finish acceptable.</u>

The aircraft in question was a home-brew HS-125, replete with compound curves and that in my opinion, positively demanded a silver finish, and so I needed to develop a different approach. After scraping the silver tissue off of the tail surfaces (and building a new \$%^&#\$^!!!# wing...GRRRR) I tried a different methodology; I will allow you to assess my success based on the pictures.



The technique is an old one (I believe I saw it first described in an old issue of Model Builder) that, due to fear of failure, I've never tried before. Basically, it involves the following steps, which are based on a Paasch "VL" type external mix airbrush equipped with the largest nozzle, a compressor (equipped with a regulator, tank, and filter) running at

25 psi, Deft brushing lacquer, lacquer thinner, aluminum powder, AND A 3M RESPIRATOR INTENDED FOR USE IN SPRAY-PAINTING APPLICATIONS.

1. In the Paasch 1 oz. bottle, I mixed 60% thinner and 40% Deft. <u>AFTER DONNING THE RESPIRATOR</u>, this mix was then fogged on the parts of the model (distance of airbrush to model ~ 12 "; the tissue in this case was Esaki white). The entire model was given one coat of the mix.

2. By the time I finished spraying the model, I had ~ $\frac{1}{4}$ " of the mix left in the bottle. <u>AFTER DONNING THE RESPIRATOR</u> I opened the bottle of aluminum powder (which is ground so finely that some of it rose out of the bottle like smoke – hence the respirator) and added ~ $\frac{1}{4}$ - $\frac{1}{3}$ " teaspoon of powdered aluminum to the mix, and topped the bottle off with thinner.

3. Using the same pressure, nozzle, and distance-to-model, one coat of this mix was sprayed onto the model. A word of caution here: When wet, the mix appears to be virtually transparent; the silver "comes out" as the coating dries.

The result was as you see below.



The rational/logic(?):

Why Deft? Based on my use of this material as a substitute for nitrate dope, I believe it has a higher, or at least <u>different</u> solids content than nitrate. For me, it covers better, fills grain better, etc.

Why not just mix the powder with the Deft?: In this approach, the Deft is basically serving as a spray-on glue. The powder, sprayed via the thinner and tiny amount of Deft remaining in the bottle (theoretically) is deposited on the surface of the "glue" and (theoretically) requires less of the powder to produce a translucent silver finish than were the powder to be mixed throughout the Deft.

A Word on Aluminum Powder:

I've been carting two little bottles of the stuff around for 30 years. Mine was made by a company called LUCO based in Mt. Vernon, NY, is identified as "Fine Aluminum Lining," and was obtained at an art supply store that catered to graphics arts professionals.

A search of the internet revealed that aluminum powder is still available, and that it is affordable, but you should be aware of the following:

Aluminum powder is also used as an ingredient in solid rocket fuels, explosives, and incendiary devices. In today's climate, there is a possibility that it (like the true black powder used by muzzle loader fans) may become more heavily regulated. If this technique interests you, you might consider buying a lifetime supply of the powder NOW...

(You can see a color photo of a model with this finish on the inside front cover. Ed.)

Rubber Scale Modeler's Muse Shop

Vance Gilbert



MUSING BITS AND PEECEES

You knew this was coming From the braintrust of the 7 A's****.... We have the 2013 NON-NATS and the 2014 FACNATS to thank for this madness, as that's where huge airplanes were flying like no-one's business. The likes of King, Star-

leaf, Nallen, Gilbert, Dion, very successfully flew their huge, sky darkening ships to great effect, especially after dinner on the field. These balsa behemoths have inspired the 7'A's****(see below) to announce a new "event" for all participating 2015 contests :

Mega Scale

Here are the rules:

- 1) Plane must be at least 54" span. Extra point (1 pt) if it is exactly 54" span Comet Size!
- 2) FAC Scale judging & scoring except....
- 3) Bonus points are to be 1/2 of what are official. Yes 1/2. Maximum in any case is 14 bonus points.
- 4) Preferred flight time to be after official flying at any big contest, but sure, fly any time.
- 5) No Kanonen awarded!! This is an unofficial greaseboard tallied side event at any contest. Greaseboard will be at someone's car announced sometime during the event. NO Kanonen - THIS IS UNOFFICIAL
- 6) Extra 1 point added if ship is an airliner (Per AAAAAAA* request)
- Best of 3 or average of 3 flites weather determined on the field contest day.
- 8) Timed mass launches encouraged 1/2 point each for each flight if three or more fly with you - do all three of your officials as a Mega mass launch and get 2 bonus points

Prizes to 3rd or whatever. TBD

****(oh.....What are the 7A's?)

The African American Antique Airliner Aeromodeller Association of Arlington, MA

(an FAC affiliated club and idea sponsor of this shindig, contact <u>vanceflite@earthlink.net</u> for info on membership...)

Notes to continue musing... This is **NOT AN OFFICIAL FAC EVENT.** Read that again. Read #5. Read it. Out-to-win competitors and rule benders take extra note, and stop reading now. Stop it. Stop.... *This is so very FAC extracurricular*...

A bunch of us around the Northeast are excited by the prospect of these ships. Clive Gamble, Doug Beardsworth, and Dave Mitchell have started theirs. Hallman, Weber, Gilbert have all been to Kinko's. There is such Mega excitement.

Now, I know that they may not travel or store well, but it seems like everyone is excited too about conniving ways to take wings offa things for transport and storage. Which brings me to our first Mega Scale musing point:

 \sim **Transport & Storage**. Yes it's more difficult. Uses up a lot of the minivan. However, do-able if you go with a simple ship. And look at that scoring system...*simple ships are encouraged*.

~ OK, I'm in. I've rented a UHaul... got dibs on the neighbor's minivan...What do I make this thing out of? Most guys seem to be reaching for the medium 1/8th inch stock.

~ So what does that thicker lumber mean to me? Now before you get crazy in the head about such lumber, I wan't you to think about this a little - The Flying Aces Navy Pursuit is a 25" span sport ship out of all 1/8th. Lumber galore. But ask Steve Blanchard, Stew Meyers, Vance Gilbert, and Paul Stott about their flyability. Paul Stott mused at the fall meet, and I paraphrase him, that "we need to rethink our construction" around this 1/8th stuff, because not everything need necessarily be built like a Dave Rees Coconut to fly better than you can chase! We have all gotten better at building, and as Dave Stott used to say "Tan II has made heroes of us all.." Paul and I sport flew these ships with limited winds at the last outdoor contest in Rocky Hill CT and we worry every time these ships go up that they may be Hung fodder. Yeah, they fly that well. And so do you..

Now mind you, about these Mega Ships we are musing about ships about twice the size of the Navy Pursuit. And this 1/8th stuff is 4X the volume of wood that you'd use if you were making a 1/16th Rees ship. But note, at twice the span the wing area has gone up by the square hey look, I hate the math too, but know enough to say that the wing is way kinda exponentially bigger, and probably quite capable of doing what you need to do, no matter what weight you come around to...

~ What's a good way to get started helping to darken the sky? Find some plans or an old kit of any of the Comet 54" span jobs (insert source here? ed.) For some reason that span is what stuck in the creation craw of this event, maybe it's particularly magical because that's what Comet went with. Somehow the 1/8th wood sizes and everything else seems to gel at that span. Those folks at Comet mid 1900's weren't dullards, for sure.

~ What else should I pay attention to? Here's a few other guidelines to help you on your muse....

- a) Props do *not* have to be 1/3 the span. You would be surprised at how reasonably sized props can be for these sized ships. Yes, even a stock 9, 10, or 12" plastic prop with glued-on extenders to make 14" props work just famously
- b) Landing gear may have to have extra attention paid to it. Make it uber stiff (weight penalty however) or uber flexible (often teetering on less scale-like, but the better of these two choices in my estimation).
- c) Blow-up a plan of something by someone else and play engineer.
- d) Find another modeler friend that does some competition nomnscale freeflight and see how he or she arranges for removable wings on their ship (yes, this is a lame way to foster more working together between the FAC and the NFFS guys...)
- e) Have some fun here. Muse about your plane's general size, out

loud, to your wife, life partner, neighbor, whomever you blah blah about this to. When they mindlessly say "That's nice..." like they usually do, go out to your (or better yet *their*) car with a tape measure muttering and smiling the whole time...

~ Potential Power? 3 - 6 loops of 3/16th

~ I have so much else to do/fly at a contest. Why would I do this for just *fun*? What? Did you say something about fun?

Take note that these ships can also be flown in FAC official events like Simplified Scale, Jumbo/Giant, applicable era mass launch, or even FAC Scale, depending on what your local meet has on tap that day or weekend or whatever you feel like doing.

Remember, this is musing. Go think about this. However, pull the following videos up on the web. Note that only 2 of these planes, in the videos - the B-24 and the Aeronca, qualify for Mega - all the others are 50" or under - and these other flyers will be heading afresh to the building/drawing board to get a 54" + ship into the ozone:

https://www.youtube.com/watch?v=fgKjfnjfm E

https://www.youtube.com/watch?v=rKVrJMtiX_4

MODEL AIRPLANE SHOP Rules and Contract:

1) NO ADMITTANCE TO SHOP WITHOUT THE INSTRUCTOR. NO EXCEPTIONS

2) No building if Mom or parent in charge says No. No means NO.

3) For safety, Building Instructor's directions are THE FINAL WORD.

4) Shoes must be worn at all times.

5) SHARP THINGS (razor blades, X-Acto knives, pins) will only be handled with instructor watching

6) SHARP THINGS should be at rest on the side of the workboard when not being used to cut or hold things.

7) GLUE follows same rules as #5 and #6.

 Other tools, wood, planes, paint, etc. in the shop will not be handled without Instructor's permission and supervision.

9) No shouting, running, hopping, skipping, spinning, whining, crying, spitting, or nose-picking in the shop. Name calling is O.K. as long as it's something like "propeller nose" or "airplane head".

10) If you are not sure (that's ok), or you are just really curious (THAT'S GREAT), please ASK QUESTIONS.

11) You may talk about anything you like. However airplane and flying topics are preferred.

12) Flying of your airplane will happen on a CALM day. Please, no whining or hollering "can we fly it now??" if the wind is blowing. Wind will break the airplane or make it fly away.

13) Breach of this contract (ask parent or instructor what *breach* means if you don't know) means airplane <u>building, that</u> day will STOP until further review by Parent in charge and/or Instructor.

BUILD, FLY, AND HAVE FUN !!!!!!!

INSTRUCTOR'S NAME

BUILDER'S NAME

DATE

DATE

Model Shop Contract:

The original of this hung signed on my shop wall for 13 years. The child that co-signed it, my niece, who lived with us for a while, is now in her 2nd year in Chinese and International Relations at Brown University. I remain certain that her rounded upbringing, and this wacky uncle's passion for aviation and history, helped to mold a young woman who, *for fun*, translates ancient Ming Dynasty texts into English. Oh, yeah, and she has good art hands too - I know that I helped instill "good hands" on this child.

Back and Forth Musing with Don Srull

Subject: Is Bigger Better?

Hi Don.

Hopefully this don't end up in the spam folder with that provocative title....

Quick question: If you had the choice tween doing a scale ship, say the attached, at 28" or 35.9" span for FAC scale, where would you land?

I've always figure I'd maximize my airplaness below 36" span wood mass by the cube or areas by the square notwithstanding, - I'd get a lot of wing for not that much more airplane really. But you seemed to be happy with scale ships and Jumbo ships being 26 " and 37" respectively and historically (CANT & P-13).

I know there's a lot more at stake math wise, and no severe rule of thumb, depending on the builder and his/her best habitual use of materials, but I do wonder what drove you to those sizes rather than , say 33" and 37" respectively?

Hope you're well best, Vance

(reply)

V	ance.
---	-------

Good question. To tell the truth, I often just fiddled with sketches of possible new subjects. No real size preferences, though below 24" for FAC scale feels too small for most subjects I'm drawn to.. I'd then just noodle with the sketches and 3 views, then I'd finally scale up the preliminary drawings in a convenient ratio - and go. Lazy and chaotic. No real method, and I'm too over anxious at that point to try to optimize anything. As hand clumsiness grows, I have come to enjoy building and flying larger models - 30" to 32" feels good for FAC scale. For jumbos I find big, over 40" to be enjoyable, but a pain to box and transport; and they are more prone to damage and wear and tear. So I still lean to 36" to 40" jumbos. No science -

Don

PS An exception: if the subject has a very high aspect ratio wing (tiny cord), I would go much larger spans compared to more conventional designs.

Subject: Fat Fokker Airfoils Efficacy

Hi Don,

Is there some aerodynamic reason that we in the Scale FF world shun fat airfoils like those on the Super Universal, Universal, ET al? Do they stall earlier? Later? Are they draggier at higher or lower mph or is it a weight/mass thing that keeps us away?

Some of these ships just don't look right with a sharp LE 10% Florsheim...

Thoughts? Thx Vance

(reply)

Vance,

Thick airfoils on models are not good! At our low speed, small wings (aka low Reynolds number), thick airfoils are draggy and tend to have bad stall and lift characteristics too. Actually, the thinner the better as far as aerodynamic efficiency goes - notice the ridiculously thin, carbon wings on modern Wakefields! Moderate thickening can help with strength, and not look too bad if carefully done. And a light model; with lots of rubber can still perform well in FAC. As a result, most FAC rubber scale subjects with puffed up airfoils, if built with scale thickness, would be dogs. A proper balance is called for here. FAC judging doesn't seem to penalize overly thinned out wings, so one can get away with a bit of fudging. Be careful though, since In some cases a skinny wing standing in for a bulbous airtoil can really lose the look of the subject. Maybe best to avoid these.

I might add that for power scale, where drag is much less important, a really thick airfoil can often be used. It can look good while letting the battery or fuel make up the efficiency deficit.

Now go make balsa dust! Don

Parting Thoughts

~ Wives and Partners. I've heard it all. I could fill a page with quotes of what i have heard from fellows and partners have whispered to me about spouses and their station in relation to the hobby. I won't - I don't want fellows to have to go all PTSD and relive those sharp quotes of pain.

Instead, here are a few lame suggestions that might help smooth the ruffled lapels of your modeling wife...uh, I mean life..

- *Smaller projects/Quicker projects......* get your modeling yayas out with a bit less dedication to the whole process. Do ten centers, embryos for a bit.

- *Get the kids involved*.....next step to the family thing. Have signed contracts (see previous page). Make yourself and her too the "go to" people in the neighborhood for these and other aero related projects. Once she has to start cutting apples, pouring Kool-Aid, *and* glueing the dihedral on 5 Delta Darts for glowing faces, she'll see the life's work involved here.

- *Mobile mini projects.....* a small building board for in front of the TV or at the beach house. hell, you're no less connected than when she's knitting.

- *NonScale projects that get her involved*......Embryos, Bostonians, Two Bits, P-30's - have her pick tissue color, in fact, get used to using some fun domestic tissue for stabilizers, rudders, fuselage tops, etc. Give her a noseblock to sand "to the line". Put **her** name on a plane...

- *Co-pilot, observer.....* teach her to hold while you wind. Timing flights can be exciting for anyone holding the watch - better than reality TV...Ask her to give her impression of the trim flight, maybe even teach some language like stall, dive, pitch, roll. This really isn't pandering because truly, that second set of eyes, even a nascent pair, can be a big help when it comes to testing a new ship. I know my Deb gets a kick out of "judging" the little winter foam flying wing glider flights into the couch pillow across the room.

- *Find something historic*..... that involve women aviators or aviation from her city or ethnicity.

- *Pay attention*......when it comes down to it, you'll find time. If you find that you cannot model at all, I'm betting modeling is not the only

thing in that relationship that is in trouble. Wake up. Pay attention to what you're doing, or maybe you need to pay attention to what you got yourself into in the first place...

- *Give her perspective*.....tell her stories of your other rip-roaring, drinking, drug-doing, whoring friends, and how they all wish they had something like Scale FAC modeling to keep them at home. She'll happily buy you both types of cyano and go fishing in the Michael's bin for 4lb wood when she shops once she realizes what she "has".

- *Leave*.....Hey, it's an option. I didn't say all the options were going to be easy - or good, for that matter....

.....

~ Use The Good Wood. Many of us say this 4-word FAC modeler's prayer when one of our modeling brethren has left the fold for zephyrgraced pastures in their final...oh, ok.... when a modeling brother dies. It's a fine and noble sentiment, another way to say that none of us knows what tomorrow may bring, so take advantage of your best tools for that great project, and stop hoarding the best stuff for "tomorrow", as you don't know whether you'll even have a tomorrow, now do you?

That all said, if you have great sheets of 4 and 5lb 1/32 and 1/16th that have warped beyond recognition, remember they don't have to be kindling - careful placement of the piece you are about to cut out, particularly formers, can exist just fine coming from a warped piece of wood. In fact, cut a left and a right fuselage former from the same sheet side-by-side, you'll note that they warp in the perfectly opposite direction from each other!! Note too that for some formers and shorter wing ribs, anything cut out of a slightly warped sheet can be "thumbnailed" straight just a teeny bit with no appreciable loss in its strength, and it will surely keep it's straightitude.

So yeah, build like you mean it, and as I remember this to each of you, like I heard it from an old aunt... "There's a date stamped onto your butt and only the Lord can read it".

Bless that fellow now gone, amen. But there's no need to waste what would be good wood if you could make that wood more good.

Gone West

Danny Kane - long time member of the Cleveland Free Flight Society, and all round top-shelf aeromodeler. His USAF service in Viet Nam lead to a successful career in the hydraulics and machine control industry, but unfortunately also exposed him to Agent Orange. He was very active with the AMA, and particularly with the museum in Muncie. Dan was a keen competitor, and always willing to help out on the field.

This notice is appearing here a bit late. We noticed it in "Squadrons Up" #53 while we were doing some sorting and filing in the office.

"Cosmic" Carmen Boticello - The man who always showed. No matter what the weather, you could count on Carmen being at the field on a contest day. Carmen's aviation career included more than just models. He was a crew chief at Pratt and Whitney in the 50's. One of the planes he crewed was the Vought Sikorsky VS 326 flying test bed. It was one of the first pressurized cabin planes. One of the memories he spoke of was the sound of the ground crew tightening down the bolts on the "escape hatch" before they flew! Looks like Carmen got the bolts loose. Hatch open, riding the thermals!



FAC GHQ & Council

When contacting FAC officers via email, please be sure to include "FAC" in the subject line so that your message isn't overlooked.

Ross P. Mayo - President & CinC

47 Saint Andrews Drive Etowah, NC 28729-9748 H - 828-595-2712 C - 814-397-5202 skyami@att.net

Roy Courtney 4221 Lakeshore Rd. South Denver, NC 28037 704-483-3709 rcourt2493@aol.com

Don DeLoach 831 E. Williamette St. Colorado Springs, CO 80903-2804 719-964-7117 ddeloach@comcast.net Vance Gilbert 17 Rockland Ave. Arlington, MA 02474 vance@vancegilbert.com

Ronny Gosselin CP 3604 Saint-Remi Quebec JOL 2L0 Canada 514-808-1808 ronny@total.net

Mike Isermann - Secretary 15006 Hollydale Houston, TX 77062 281-480-6430 Balsabug@gmail.com

Ralph Kuenz - Vice President 46127 Hampton Dr. Shelby TWP, MI 48315 - 5605 517-240-0208 rdkuenz@yahoo.com

Blake "Bubba" Mayo - Treasurer 3447 Adelaide Drive Erie, PA 16510 bkmbubbamail@aol.com join@flyingacesclub.com Winn Moore 2389 Olds Metamora, MI 48455 810-678-2526 winn_moore@yahoo.com

Stew Meyers 8304 Whitman Drive Bethesda, MD 20817 301-365-1749 stew.meyers@verizon.net

Dave Mitchell - Webmaster & Keeper of the Rules 230 Walnut St. NW Washington, DC 20012 webmaster@flyingacesclub.com

Gene Smith 1401 N. Husband Street Stillwater, OK 74075 grwhiskey@brightok.net

Paul Stott 175 Thoreau Dr. Shelton, CT 06484 alfa28@aol.com Rich Weber - FAC News Editor 9154 Eldorado Trail Strongsville, OH 44136 newsletter@flyingacesclub.com

George White - Keeper of the Squadron List 10100 Hillview Drive #234 Pensacola, FL 32514 850-473-0866 white76@cox.net

Roger Willis 27543 Paper Bark Ave. Murrieta, CA 92562 951-249-9688 willisasoc@aol.com

Note - Names in **bold type** are FAC Board members.



Keeper of the Kanones George Bredehoft 7686 B Drive South Battle Creek, MI 49014 KanoneReport@gmail.com

Membership Information



- Membership brings you six issues of the **Flying Aces Club News**, and all the grins that come with being a Junior Bridman.
- When the **Dreaded Red X** shows up in that circle next to your address label, it is time to renew your membership. Please note: the **DRX** is the only notice you will receive. *Memberships cannot be back dated* so any missed issues of the newsletter will have to be purchased. (For back issues, see below.)
- Your renewal date will be printed on your newsletter mailing label so the **DRX** won't sneak up on you.
- If you would like to use the **PayPal** option to send your dues, go to: **flyingacesclub.com** and click on "membership." The PayPal button is at the bottom of the page. Pick your location (US, Canada, or Overseas) and hit the button.

- You can still send a check through the good old mail service. Use the form below, or any reasonable facsimile. Please make checks payable to: **Flying Aces Club**
- **Canadian and Overseas members**, please use PayPal (preferred) or send checks payable in US dollars.
- Change of address please note the post office does not forward bulk mail so be sure to handle this promptly or you will miss an issue! Send your new address, or any questions about your membership to:

Flying Aces Club 3447 Adelaide Drive Erie, PA 16510

or email to - join@flyingacesclub.com

,	
FAC News BACK ISSUES in limited numbers are available.	
for \$5.00 each. Send orders for all back issues to the s	ame
address as above.	

Flv	ring Aces Club Membership F	Annual dues in \$US:	
,	New Renewal		• \$20 USA
		MAAC or	• \$28 Canada
Name:			• \$40 Overseas
			Please make checks payable to:
Address:			- Flying Aces Club and send to:
City:			- 3447 Adelaide Drive
State/Prov:	Postal Code:	Country:	– Erie, PA 16510
Email:		Phone:	



FAC Contest Calendar



Durham, CT	Jan 4	Pinkham Field Mini Meet	NRE Novak	106 Cutlery Ave. S. Meridan, CT 06541
Washington D.C.	Jan 18	DC Maxecutors National Building Museum Fun Fly*	Glen Simpers	grfreeflight@hotmail.com
Washington D.C.	Jan 18	DC Maxecutors National Building Museum Fun Fly*	Glen Simpers	301-843-2896
Winthrop, MA	Jan 31	Stealth Squadron Indoor Meet	Rich Zapf	978-352-8331
Winthrop, MA	Feb 28	Stealth Squadron Indoor Meet	Rich Zapf	978-352-8331
Winthrop, MA	Mar 28	Stealth Squadron Indoor Meet	Rich Zapf	978-352-8331
Kent, OH	Apr 24 - 25	CFFS Indoor Contest - KSU Field House (Saturday time trials only)	Mike Zand	imzand@hotmail.com
Winthrop, MA	Apr 25	Stealth Squadron Indoor Meet	Rich Zapf	978-352-8331
Geneseo, NY	July 16 - 18	2015 FAC NON NATS	GHQ	Stay tuned!
Muncie, IN	Sept 17 - 18	2015 FAC Outdoor Champs	Winn Moore	winn_moore@yahoo.com
Buckeye, AZ	Oct 21 - 24	2015 WESTFAC V	Duke Horn	dukehorn@rocketmail.com

*This year there is an additional challenge to flying in the NBM. There will be architectural models hanging from the third balcony so that they will be a eye level just off the second floor balcony. We will have the flying with this limitation in mind. Please plan accordingly. I would like to solicit two people skilled in the use of steering poles to help us keep the lighter models away from the exhibits.

To get your event listed on this page, **send the info to the editor**. To get your event listed on the website contest page, send your stuff to our esteemed Webmaster, Dave Mitchell. **Contact information is on the Membership Information page**.



Charlie Sauter may have been vying for the "furthest traveled" award at Wawayanda this year. It's a long haul from Columbus, OH to the big sod farm in NY, but worth the trip. His Mustang placed 3rd in WWII, and he went home with a kanone for his victory in Embryo. 1. The Cloudbusters had their last outdoor contest of the year at Broome Park on Nov 2 in light winds and low temps. Six Free Flighers were on the field logging flights; among them was Pete Azure. He flew this ten year old King Harry to victory in Two Bit OTR.

2. The Barron Field Air Races in Wawayanda, NY were flown in some challenging conditions this time around. This photo captures a dramatic looking sky just before the Golden Age Combined mass launch. Co-CD Tom Hallman is looking over his shoulder, no doubt wondering what Mother Nature has in mind next. Tom and the Houck family do an outstanding job running this event every Fall. Contest results are on page 11.

3. CD William Scott Congratulates Bob Hodes as the Grand Champ at the Scale Staffel's wrap up for 2014. (For more details, see the WestFAC column on page 8.) Congrats Bob!

4. For the first time in history, the top finishers in the WWI mass launch at Wawayanda were awarded fabulous cash prizes! Bernard Dion handed out the vast sums right after the event was flown. Before you make plans to get rich at the next Barron Field Air Race, there are a few details you should know:

Bernard spent 2 weeks in Greece in May and found some old Drachma and Deutschmark bills in a flea market. So Wally Farrell is holding a 10 million Deutschmark bill (dating from around 1909). Tom Hallman has a 100,000 Drachma bill barely sufficient to buy one bubblegum. Dick Gorman will rush to the nearest Bank of America to change his 5 million Deutschmark bill. I hope these fellows remember to include their winnings on their tax returns. *(Thanks to Luc Martin for the caption to this photo.)*

5. Oliver Sand was working on getting his Embryo trimmed out at the Glastonbury Modelers Turkey Fly. The CT boys had a pretty good day for flying in November, and a good turn out.

6. Steady Steve Blanchard was also flying up a storm at the Turkey Fly on the Rocky Hill field. Here he launches his Victory Stick; one of the fun events that the boys in CT regularly fly.

7. No, the Connecticut fliers are not out in the field doing Tai Chi exercises. This is another form of madness: a mass launch for catapult gliders! Their "Baby Glider" event is obviously very popular. Just be careful where you stand to watch.

8. No report on flying at Wawayanda would be complete without a photo of a model suffering from the ravages of the drainage ditches. Wally's trainer took a brief mud bath, but will live to fly another day.

BUILD...What you really like FLY...All you can WIN...Just let it happen



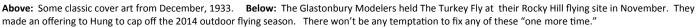




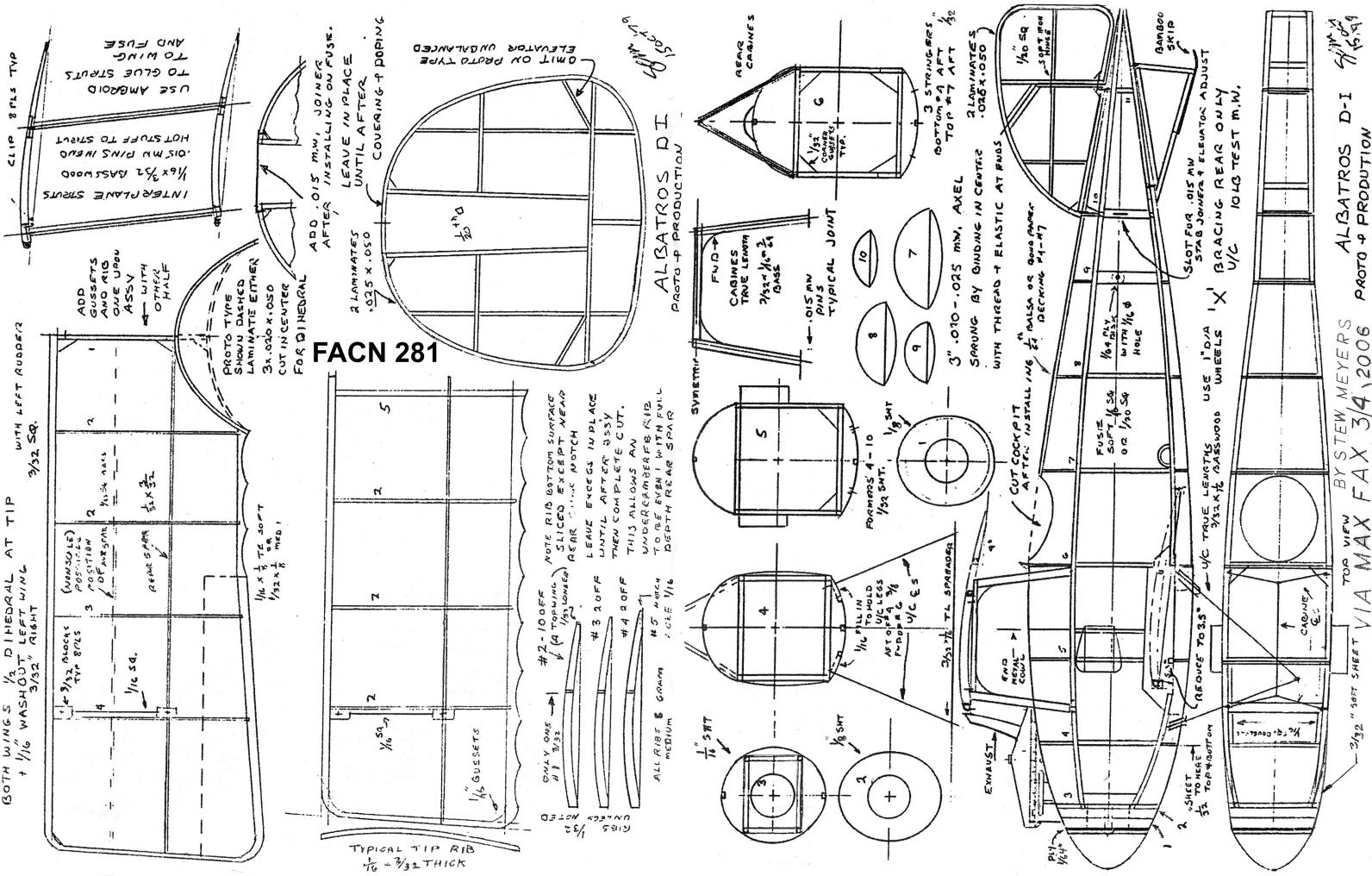
3447 Adelaide Drive

Erie, PA 16510

PRSRT STD US POSTAGE PAID ERIE PA PERMIT NO. 199









A slow, steady climb is a characteristic feature of this dependable "Cloudbuster" Bipe.

HE MAJORITY of rubber-pow-

ered models built are intended to be flown for sport. Monoplanes of simple construction dominate the field, so it is a rare occasion when a biplane is seen. The trend of full scale aircraft design away from the biplane type has influenced model design and has caused us to forget the slow, stable and realistic flights of the double-decker. This sport model is reminiscent of the tiny single-seat biplane sportsters of a few years back and its addition to your model fleet will neither soon be regretted nor forgotten.

FUSELAGE

Start construction by pinning the 1/16" square longerons and vertical members over the side-view plan. The 1/16" sheet balsa wing insert slot border is attached to the frame at this point. It is advisable to construct the two side frames simultaneously, one atop the other to insure duplicates.

Carefully assemble the sides together along the parallel portion of the body with 1/16" square cross pieces, finally drawing the frames. together at the rudder post and inserting the remaining cross members.

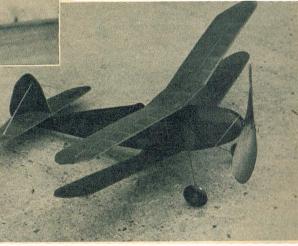
Formers and stringers, cut from 1/16" sheet and strip stock respectively, are cemented in their proper positions and notches. The areas shown about the nose and top of the body frame are covered with 1/64" sheet balsa. With the addition of the .040 wire landing gear, formed over the given pattern and cemented in the position indicated, the 1/16" rear motor attachment sheets and thin aluminum reinforcements, and an .040 wire tailskid, the fuselage frame is complete.

WINGS

Each wing is composed of three parts; two panels and a center section. Both upper and lower wings are of the same dimensions. The right panel plan may be had by tracing the left one shown, with the inked side of the carbon tracing paper

Using the patterns, prepare 34 ribs and 8 wingtip pieces from 1/16" sheet balsa. Pin over the plan the

Build the "Cloudbuster" Bipe by Bill Cahill



Light, with simple lines, the biplane gives good performance.

1/16" square bottom spar and set the ribs in position over it. The $\frac{1}{8}''$ square leading edge, 1/16" by 3/16" trailing edge, 1/16" square top spar, and tip pieces, are now cemented and held in place by pins.

Trim and sand to smooth airfoil shape the edge and tips after the frames have been removed from the plan. 1³/₄" of dihedral should now be built into the wings by blocking up each tip and cementing the panels, butt-jointed, to the flat center section.

Prepare two .040 wire center section struts of the shape indicated and attach with thread and cement to the upper wing at the point shown.

TAIL SURFACES

The rudder and stabilizer are conventionally built of $\frac{1}{8}''$ square leading edges, $\frac{1}{8}''$ by 1/16'' spars and ribs. Tips and trailing edge pieces are cut from 1/16" sheet to form the curved outline; assemble neatly and sand ribs to the shape illustrated.

The plane will be simpler to adjust if rudder and stabilizer are kept free from warps, and as light as possible without sacrificing strength.

PROPELLER

DREPARE A PROPELLER blank from a hard balsa block 7" by $1\frac{1}{2}$ " by 1" to the shape shown on the plan. Carefully drill a tiny shaft hole to produce an even-tracking prop and proceed to carve a righthand propeller. Cut and sand the rear face first, undercambering it 1/16". Turn the blank over and finish the front face to a thickness of $\frac{1}{8}''$ one inch from the hub to a 1/16''thick tip. Trim the blade outline to shape and finish with banana oil, using fine sandpaper between coats. A model is only as good as its

propeller, so you will be amply rewarded in superior flight performance if extra time and care are used in carving props for your plane.

From a block 15%/8" by 3/4" by 13%", shape the nosepiece and finish like the propeller. Cement washers to each hole of the nose and propeller as bushings to prevent wear. Mount the prop

on a .040 wire shaft and employ your favorite free

wheeling device. The one shown on the plan is simple and foolproof.

COVERING

OVERING is simplified by the even flat surfaces of our snappy ship. Entire panels may be covered with one sheet, using banana oil as an adhesive. Carefully trim and lap down the excess tissue and tighten with the fine spray of a water atomizer. Don't forget to pin or weigh flat all warpable surfaces. When the tissue has dried give the fuselage four, and the flying surfaces three coats of banana oil to air-andmoisture-proof them.

ASSEMBLY

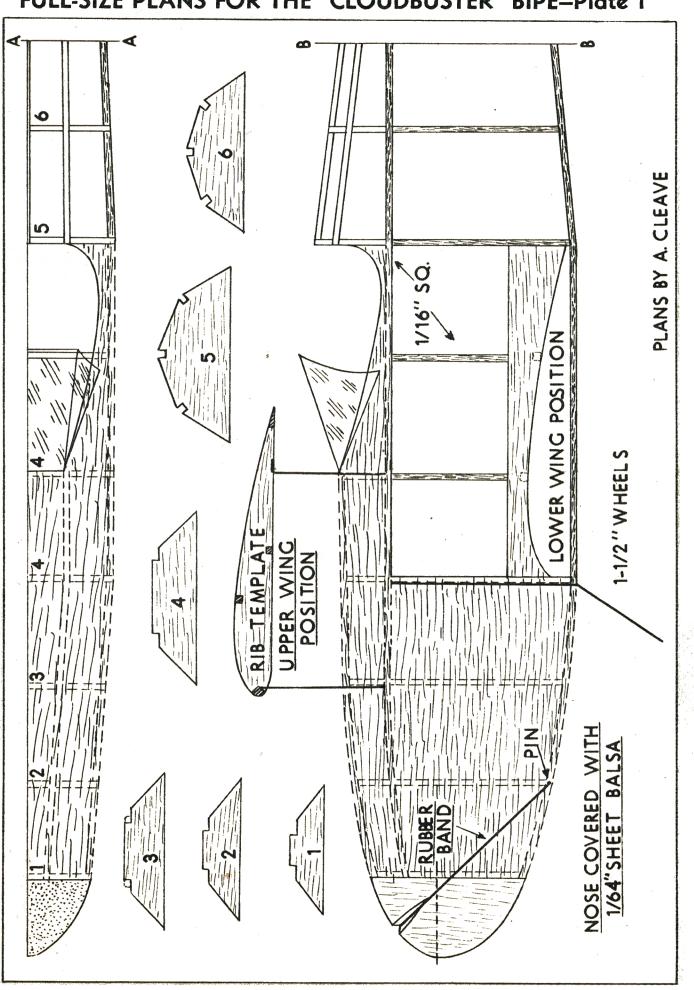
Trim away the tissue from the top of the fuselage at the stabilizer position and from the attaching points of the stabilizer, for a strong wood-to-wood joint. Cement the stabilizer on and keep checking for correct alignment. Next attach the rudder in the same fashion with a bit of right turn offset.

Wheels of the proper dimension, which can be purchased or made are slipped on and held in place by a drop of solder. Small rubber bands are used to mount the wings. Very good shock absorbing qualities are gained from this feature and the model may be easily dismantled for box transportation.

FLYING

Make up and lubricate a six strand motor of 3/16" flat rubber. The amount of power needed will differ for individual ships, but this amount should be about right. A bamboo pin anchors the rubber in the rear of the ship. Some sort of material should cover the front hook, which (Continued on page 67)

FULL-SIZE PLANS FOR THE "CLOUDBUSTER" BIPE-Plate 1



FULL-SIZE PLANS FOR THE "CLOUDBUSTER" BIPE-Plate 2

